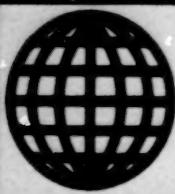


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Economic Affairs

Soviet Union Economic Affairs

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ECONOMIC POLICY, ORGANIZATION, MANAGEMENT

**Abalkin Notes Economic Difficulties, Defends
Perestroika**
*18200036 Moscow MOSKOVSKAYA PRAVDA in
Russian 22 Sep 88 p 2*

[Interview with Leonid Ivanovich Abalkin, academician and director of the Institute of Economics of the USSR Academy of Sciences, by V. Logunov]

[Text] [V. Logunov] Leonid Ivanovich, MOSKOVSKAYA PRAVDA has a big mail. Reading it, meeting with specialists, and observing the processes that are taking place, involuntarily I arrive at the following conclusion: The state of our economy is unfortunate. Even the following opinion is expressed: "Everything has become worse." How do you evaluate its present situation? Are some tendencies visible?

[L. I. Abalkin] The economy occupies the key place in perestroika. Without its radical changes the present process of renewal cannot be effective. Although it is just as correct that advances in the economy are impossible if there are no significant changes in spiritual, social, and political spheres. Everything is interconnected.

However, it should be kept in mind that in the past, today, and in the future man judged and will judge the policy and its results primarily according to what is on the counter, whether there are lines, and how the service sphere operates. This perception is natural.

[V. Logunov] Several decades ago this would have been called sacrilegious. How is that: Everyone is building communism and the academician is talking about some counter. But then perhaps this quibbling in our talk is not quite appropriate...

[L. I. Abalkin] Why is it not appropriate? The 20th party congress had already proclaimed the following political slogan: To meet man's material and spiritual needs as fully as possible. However, did we always follow this slogan? And do we follow it today? Possibly, we will still touch upon this subject. But now I would like to talk about the present state of the economy and to stress the following: When we critically evaluate the situation in the economy, this is not due to the desire to express dissatisfaction. This is not grumbling and, moreover, not malicious pleasure—you see, people say, nothing comes out of this.

[V. Logunov] This is our pain...

[L. I. Abalkin] Yes, this is both pain and painful mutual experience. This is also the realization of the need for radical changes, duty, and responsibility. I say this in order to explain my quite critical evaluations of the negative phenomena in the present economy.

Yes, the situation in the national economy is very difficult today, although we have managed to do something. First of all, to stop the slide toward a crisis. At the end of the 1970's and the beginning of the 1980's we approached it slowly, but steadily. Today we have stopped the movement toward the dangerous edge of the abyss.

[V. Logunov] Leonid Ivanovich, you... looked into this abyss. What did you see there?

[L. I. Abalkin] A great deal of courage is needed in order to call things by their names. There, beyond this edge, there is a social catastrophe and the loss of everything that has been created with the labor of several generations. So that when the policy of perestroika was chosen, the problem was not of details, but no more or less, of the fates of socialism.

Thus, the slide toward the crisis has stopped, but the economy has not yet gotten out of the previous stagnant state. Forces of inertia continue to operate. As before, primarily extensive economy is developing. Disproportions have not been eliminated and in a number of cases they have become aggravated, including on the consumer goods market.

The reasons can be divided into two groups. I would call those belonging to the first group objective.

Perestroika began under unfavorable internal and external conditions. As the saying goes, the ink had not yet dried on the documents of the 27th party congress when the Chernobyl tragedy occurred. The political, moral, and economic damage is tremendous. Chernobyl cost the nation 8 billion rubles—this is 1.5 percent of the national income.

At the same time, the situation on the world market sharply deteriorated for our country. There was a significant drop in prices of raw materials and power resources, which we export traditionally. To restructure the export in 1 or 2 years is not a realistic task. As a result, in 2 years the country's foreign trade turnover was lowered by 10 percent, or by 14 billion rubles in current prices. This sharply limited the possibilities for a maneuver on the foreign market and reduced purchases through import of many things, without which the national economy cannot yet manage. It is a matter of equipment and machinery, but not only of this. We have begun to economize on purchases of coffee, drugs, and other consumer goods.

Finally, the beginning of perestroika coincided both in time and essence with the large-scale anti-alcohol campaign, which is socially correct and noble in its goals, but under the existing mechanism—it does exist!—has sharply undermined the financial base of the state and its budget, not to mention the insufficiently thought out methods of carrying out this campaign.

[V. Logunov] Let us call what has been enumerated external, perhaps, fatal forces. Of course, let us call them conditionally.

[L. I. Abalkin] Nevertheless, they cannot be ruled out. They explain some of our failures.

However, in this situation we could have attained more. Here I will go on to the second group of causes.

Inconsistency, indecisiveness, and half-heartedness—this is what creates obstacles on our path. We adopt hasty decisions and then revoke them. For example, everyone remembers the situation with the state order. And what about the decision on taxes on cooperative workers adopted hastily in a secret atmosphere and without consultations with specialists and scientists? Next we approve a government statute on state production associations and revoke it after 2 months.

There are many such examples. All this creates an unstable situation in the national economy and society at large and prevents it from uncovering its capabilities and potentials.

The new decisions adopted by us often have the nature of a compromise. Of course, a sensible compromise, especially in daily life, is necessary. However, in fundamental matters compromises prove to be the worst form of decision.

What I consider totally unacceptable are attempts to combine incompatible goals, that is, to increase rates of growth and, at the same time, to reequip the national economy and to improve the quality of output.

[V. Logunov] But what should be done? After all, we are short of everything.

[L. I. Abalkin] This is not quite so. For example, do we manufacture insufficient footwear? A total of 800 million pairs! There is more footwear per capita than in European countries. But people do not want to wear it. We grow more potatoes than the required quantity, because we have not learned to store them. Moreover, we smelt twice as much steel as the United States, but even this is insufficient. The paradox lies in the fact that the shortage is due precisely to the attempt to produce more. This leads to disproportions and a deficiency.

Furthermore, the orientation toward quantity is incompatible with priority directions. After all, we retain the indicator—output of goods in rubles—but this is in irreconcilable contradiction, for example, with the output of children's clothes or inexpensive goods for elderly people. Incompatible goals in economic policy, as a rule, lead to the fact that not a single goal is attained.

[V. Logunov] Leonid Ivanovich, if my next question seems uncomfortable, you may not answer it. We are now talking about half-heartedness in economic policy. I am asking a

direct question: From where is this half-heartedness? What does hamper the introduction of the new mechanism? Is it not the fact that the new significantly affects the interests of some groups?

[L. I. Abalkin] I consider the question correct. I have my own view of the problem, although I do not pretend to the absolute truth.

The point is—true, we do not always realize this, but such is the reality—that the forces of perestroika and renewal now oppose conservative forces wishing to preserve the former, usual system unchanged. Representatives of both forces are always in every body engaged in the development of draft laws and in every commission and work group. That is why the adopted decisions are compromising in nature. Both sides make compromises, because decision making cannot be dragged out for an indefinite time—it is necessary to act. Hence the half-heartedness.

For example, this happened with the state order. The same article of the Law on the Enterprise states: As a rule, the state order is placed on a competitive basis and envisages mutual obligations of the parties. And in the same place: The state order is established by a superior organization and is mandatory for the enterprise. However, this is incompatible in principle!

Frankly speaking, the situation is very complex. It is the consequence of the real disposition of forces in society. Conservative forces are not at all necessarily concentrated, for example, in the managerial apparatus, although there are many of them precisely here. There are advocates of the radical reform in the managerial apparatus, but there are also conservatives among scientists. The disposition of forces is not of a pronounced professional nature. Everything is much subtler. However, in one way or another, compromises have to be made, which does damage to society. After all, only unified decisions are effective.

[V. Logunov] I would like to make only one remark here: People understand this.

[L. I. Abalkin] Therefore, it is necessary to stress once again: The situation is not simple. I think that the time has come to clearly define the positions of both sides. This should be done openly, without evasiveness and half-heartedness, without diplomacy and gentlemanliness—lest someone is offended—which is unnecessary in this case. It is finally time for society to know: Who is for what.

Unfortunately, we in no way can master democratic methods when working out decisions. There is a shortage of experience and skills. For example, a progressively thinking deputy objects to the compromise incorporated in the law. However, he cannot be against the law in general. Therefore, he votes for its adoption, although he does not agree with something. This could have been

avoided if the procedure of a separate voting on certain matters had been envisaged. Let us assume that a deputy votes for the adoption of some law as a whole, but there is a separate voting on its individual disputable article. Then it immediately becomes clear who holds such a position. And it is quite possible that voters will find the opportunity of influencing their deputy if he deviates from their line.

[V. Logunov] Compromises and arguments—all this, perhaps, is useful, but a moment arrives when it is impossible to postpone decision making. So it seems to me...

[L. I. Abalkin] Yes, the factor of political will is necessary. In such situations the higher political leadership must manifest decisiveness. This is natural, because precisely it is capable of most systematically expressing public opinion and the national will and standing above the interests of individual groups. Incidentally, such a situation will soon arise again—when the time comes to adopt the 13th Five-Year Plan. This will be a new trial of strength. The 13th Five-Year Plan is of a fundamental nature. A great deal will depend on the approaches and parameters that we incorporate in it.

[V. Logunov] Leonid Ivanovich, some comrades maintain that society was consolidated around the ideals of perestroika. Perhaps this is so, although, as it seems to me, it would be more correct to talk about the desire on the part of wide masses to renew the country. In my opinion, however, the path, which we will have to follow, has not been illuminated sufficiently. The overwhelming majority wants a renewal, it wants things to be better, but does not know how to achieve this. It seems to me that a unified and complete concept of perestroika has not yet been created. Therefore, we rush now here, now there.

[L. I. Abalkin] I don't agree with you on this matter. Yes, 3 years ago there was no concept of perestroika. But now it exists. And I must say that we have never had anything like this. Look: The present program encompasses all transformations, beginning with the diversity of forms and types of property, combination of big, medium-size, and small enterprises and the financial system, and determination of the role and place of credit and price formation principles. I repeat, we have never had such a theoretically developed model—neither in 1965, nor in the 1930's, when the administrative system of management and its "children"—people's commissariats—were established, nor even during the period of the New Economic Policy.

I could agree with a part of your statement, namely: The concept of perestroika has not been assimilated by public consciousness. It seemingly has skimmed the surface, grasping only some details.

Why does this happen? Most likely, because the attention of the press is riveted to history and transformations in the political system, but somehow it is too busy for the

economy. In the system of political and economic education people believe that they should not engage in educational work and that concrete economy is their task. There is another reason—in my opinion, the main one... In contrast to previous reforms, the present reform includes such a concept as the principle of natural diversity. The 27th congress stated the following about this: Rejection of the attempt to find unified forms and methods of management for all national economic sectors is the fundamental distinction of our restructuring of management. This means that it is impossible (and harmful) to try to confine diversity to the Procrustean bed of universal decisions. There is a political directive and there is a law. We must operate in their broad channel.

However, how to describe all this diversity in an article or a book? There is no and there can be no confidence that something that will prove to be a better alternative will not be found tomorrow.

[V. Logunov] Apparently, here it is a question of us not being able to get rid of the dogmatic belief in the absolute. We maintain that there are no two truths, but is this so?

[L. I. Abalkin] Truth is always multivariant. For example, both the first and the second cost-accounting model have equal rights to existence. But their advocates often exert a great deal of effort in order to demonstrate the advantage of one and the shortcomings of the other.

[V. Logunov] I will precede the following question with an amusing episode. Once a critic, talking about the origin of realism in literature, noted: Romanticism gave way to realism in such-and-such a year. Heine reacted then and there: "Can't you say at precisely what hour?" Nevertheless, at precisely what "hour" will we finally stop balancing between the old and the new system of management?

[L. I. Abalkin] In 2 years. As is well known, we faced a choice: Either to give up the 12th Five-Year Plan developed according to old principles, to revise it, to make radical changes, or to preserve it at all levels—from the national economy as a whole to the enterprise—and to gradually adapt the new mechanism to this five-year plan. The second decision was adopted. As a result, the administrative system also remains (not partially, but fully) predominant today. This will be until the end of the five-year plan. Therefore, we can expect the completion of transformations only in the early 1980's. At that time we can also expect serious changes in the economy. Now, however, nothing is left but how to accept existing conditions, to act in this situation, and to try to find effective solutions.

[V. Logunov] What do you have in mind by effective solutions?

[L. I. Abalkin] First of all, it is very important not to lose sight of the 13th Five-Year Plan and to incorporate advanced solutions in it: balances, normatives, and

proportions. It is necessary to avoid rigidity in the plan. If it is not permitted, the state order of the present model will remain inevitably. The five-year plan should be sufficiently flexible and elastic—this is the main condition for a successful completion of the first round of confrontation with the administrative system.

Second: During the remaining 2 years it is necessary to carry out the entire set of planned transformations. I am talking about the financial and credit reform, the reform in price formation, and the transition to wholesale trade in the means of production (even if on the whole). These are difficult tasks. The economy is unbalanced and deformed and disproportions literally tear it apart. Therefore, 2 years—this is not dragging out, this is an optimistic period.

[V. Logunov] It is difficult to resign oneself to the fact that the existing administrative system continues to aggravate the economic situation. This is the same as if evil, which we could stop, but do not, was created right in front of our eyes.

[L. I. Abalkin] Such is the reality. To stop does not mean to cut off. The administrative system does not exist in an isolated manner. It is our flesh. Furthermore, and this should be stated more precisely, when I talk about the 13th Five-Year Plan and about the fact that a significant and fundamental improvement can be expected only from that moment, this does not mean that right now we are not capable of attaining an improvement. We often directly connect the results of functioning of the economy with the economic mechanism. However, there is no direct connection between them. In fact, the results of economic activity are the consequence of operation of two forces: the existing mechanism of management and economic policy proper.

[V. Logunov] Excuse me, but what you said needs an explanation.

[L. I. Abalkin] You will understand everything now. When a reduction in exports and, accordingly, in imports occurred, decisions in the area of economic policy were needed. Pay attention: It was not necessary to change the mechanism of management and the price system and to introduce cost accounting. It was necessary to make a decision of a political nature: By what to reduce imports? Should currency funds for drugs, coffee, toothpaste, and footwear be cut? After all, we have just proclaimed the priority of social values and then, without special doubts, curtailed them. As a result, a negative background was formed around perestroika and panic and irritation were created.

There is also another aspect. Let us say, we saved currency on consumer goods; for example, footwear. However, for every saved currency ruble we lost 7 or 8 rubles in the retail trade turnover (such is the price structure).

In general, there are acute problems, which poison our life, but which can be solved in a short time. Let us even take such a delicate matter as the meat problem. Leasing in animal husbandry can give a big effect, but this is not enough. Why should we right now not utilize the principle of self-provision based on a fixed volume of deliveries to the centralized stock?

[V. Logunov] We are now beginning to see things clearly little by little and to note: The state incurs excessive and sometimes simply unnecessary expenditures, in particular, on the maintenance of unprofitable enterprises. Frozen resources have reached an enormous value. What is your perception of this problem?

[L. I. Abalkin] In my opinion, everything is clear with unprofitable enterprises. Excluding the coal industry, where unbalanced prices have been formed historically, all others should be liquidated by the end of this five-year plan. This is fair with respect to such enterprises and labor collectives. In fact, no matter what we say, the country's citizens pay for the losses of such enterprises from their pockets. I believe that it is necessary to carry out an open and indicative liquidation of unprofitable enterprises and to talk about the consequences in the press and about those who live at the expense of society. Of course, we don't need unemployment, but people working at unprofitable enterprises should finally feel that they are dependent on their fellow citizens for support and that this is unfair and immoral. They must realize to what they have been brought and what this costs us. I made such proposals, but, you know, life took other unexpected turns for me. Proposals for the liquidation of a number of enterprises had already been prepared when, suddenly, collectives requested that this be held off and that enterprises be leased to them. Instead of liquidation the process of transforming enterprises into cooperatives began. Very good results were obtained. This is reassuring.

It is possible and necessary to reduce expenditures on the construction of expensive projects, which has been going on for decades. Furthermore, obsolete technology is used in such projects.

It can also be a matter of redistributing resources in so-called finishing industries; for example, in the processing industry.

You mentioned frozen resources... Their stocks have reached fantastic dimensions and value—about 400 billion rubles, or two-thirds of the national income. Mechanisms putting resources into operation are needed here. Why should cooperatives for the sale of surplus products not be organized?

We should eliminate the paradox of the modern economy—a shortage with gigantic unutilized resources. In our institute there is a group working on this problem.

[V. Logunov] We are grateful to you for your attention to MOSKOVSKAYA PRAVDA readers. Most likely, they will have questions for you, perhaps there will be suggestions, and objections are not ruled out. If needed, can we also count on the same attention in the future? After all, as you have noted correctly, all of us need the elimination of economic illiteracy. Such meetings open one's eyes to many things.

[L. I. Abalkin] Yes, I am ready.

Popov on Link Between Economic, Political Reform, Price Policy

18200007a Moscow OGONEK in Russian
No 33, Aug 88 (signed to press 9 Aug 88) pp 6-7, 30-31

[Article by G.Kh. Popov, doctor of economic sciences, MGU professor: "Let Us Talk in the Spirit of Glasnost..."]

[Text] Doctor of Economic Sciences MGU Prof G. Kh. Popov, on invitation from the CPSU Central Committee, participated in the meeting of the 19th All-Union Party Congress. His remarks are the result of reflections on the socioeconomic problems set by the conference that require an immediate solution.

Economics and Politics

The conference was devoted to two interconnected reforms—of the economy and of policy. And the main position was occupied by the discussion of the reform of the political system. The reform of the economy was discussed less, more frequently on a critical plane: bureaucratic distortions in the implementations of the 1987 decisions and shortcomings of these decisions themselves were analyzed. But there were not many positive suggestions.

This attitude toward the statement of the problems of politics and economics disturbed L. I. Abalkin. G. A. Arbatov, who responded to him, noted that the attitude was correct. Which of them is right?

We grew up and live in a system where politics has always been the first and major force. In a century where the political superstructure was created before the economic base. Where the political system has become the main instrument in creating the economic base. Where the political system has commanded the base and become the Administrative System. Where the separation between the authority and the base has gradually generated bureaucratism and voluntarism and tendencies toward personality cults.

Politics in first place again? Does it not turn out that we are separating the superstructure and have become engrossed in its renewal, even if it is in a democratic spirit? Is it really not clear that a political reform that

relies on the old administratively organized economic base will not go further than declarations? Are we again placing the cart before the horse? Have we really not learned anything?

Politicians looked for the solution in changing the technical base—first a course toward chemicalization, then a course toward land reclamation, then a course toward scientific and technical retooling. Nothing came of these courses, although they were correct in and of themselves, since the resources were invested and utilized in an ineffective system. A kolkhoz, for example, that has been concentrated as a one-sided pump for pumping out funds from rural areas cannot become an instrument for advancing agriculture, and attempts to organize a reverse movement of resources through this pump have led only to atomization.

We economists at first pointed the finger at politicians as the party guilty of our economic problems. And we considered our economic system in and of itself to be the only possible kind for our socialist economy. But the replacement of a number of political administrations and the failure of a series of scientific and technical programs to remove us from our difficulties led us economists to the idea that the causes of the problem lie somewhere deeper, and it cannot be ruled out that they are in the economic base itself.

This idea, when it was reinforced, also ultimately led to proposals concerning a radical economic reform. We said: It is not a matter of managers and not institutions, not the structures of agencies, and not the type of administration. It is a matter of the type of economy, which is constructed in such a way that its motive force, its core is in a noneconomic administrative motor. Therefore the solution lies in a reform of the base. If we do not change this base any changes in politics will be trumpery. We literally suffered through the idea of restructuring the economic system as major conditions for all other changes.

And now it seems we must abandon this idea. Having barely taken the first steps or, rather, having barely announced the forthcoming radical economic reform, we are suddenly returning to the sphere of politics. Is this not a flight from the difficulties of the major, base restructuring? Is this not a remnant of the past when either elimination of ministries and the creation of sovnarkhozes or the elimination of sovnarkhozes and the creation of ministries and other analogous changes substituted for a radical economic reform?

But what would be more logical? Initially to make changes in the economic base. To break down economic structures like public consumption funds (which are free of charge and abundant mainly for the higher levels of the apparatus), like the agroprom, like directive planning which are the economic basis of bureaucratism and the mechanism for slowing down. Develop a new economy.

Feed the people. Clothe them, get them used to independence in economics. And subsequently—without fail, but subsequently—make democratic changes in the superstructure and the political system. Then these changes will be durable and logical and will not degenerate into showiness and formality. A person who is well-fed and clothed can be given democratic rights—even with 10 candidates for one position he will vote for socialism.

Incidentally, that is the way capitalism has developed. During the course of victories in bourgeois revolutions the bourgeoisie proclaimed all freedoms and in fact turned the screws—both in politics and in ideology. And only with the development of a real capitalist economic base was there development of the mechanism for broad bourgeois democracy.

But how does one proceed toward political reforms under the conditions of a deficit? As people who stand in line for hours take advantage of their expanding political rights? How does one proceed along the path of political reforms if the bureaucracy holds all the levers in its hands and is capable of suppressing any contract or any cooperative?

What can extensive democracy do in this situation? An explosion of anarchy and a campaign of the "lower levels" for the apparatus? Or, conversely, will the apparatus "emasculate" this democracy and remain in charge, having mastered under the new mechanisms the art of manipulating all political and intraparty life.

After all, we had experience in kolkhoz democracy. The kolkhoz was, to use modern language, on residual cost accounting. And the kolkhoz workers were almost fighting at the elections for "their own" chairman, protesting against the one brought in from the rayon. But then the interest in the elections to the board and the chairman dropped. Why? Because they introduced guaranteed payment in excess of wages—they abolished residual cost accounting. Once you have guaranteed from above the most basic part of my wages regardless of the results of the work of the kolkhoz, and the question of who will lead the kolkhoz you now have the last word. Stories of the struggle of kolkhoz workers against the authorities during the course of elections disappeared from the newspapers and from life. As we can see, forms of democracy can "live" only with certain economic foundations, and without these foundations they remain merely forms.

We have now introduced elections of directors. How is this happening? In places where there is more or less real cost accounting and certainly with the contract, whether it be a brigade, shop, plant, or cooperative, the people are interested and active in the elections. But in places where the cost accounting is formal the elections either take place with complete passivity of the voters or deteriorate

into presenting personal reports. And here experience shows the same thing: the forms of democracy cannot be severed from the economic mechanisms.

In a word, the misgivings about the economic reform, the misgivings that we would become involved only in political restructuring were quite justified. I was convinced of this by the speeches of delegates, mainly local leaders. For them there were no doubts at all and, as it turns out, there were no problems regarding the relationship between economics and politics. The day before yesterday they applauded the political and party leadership as the major and decisive levers that are sufficient for solving all problems of the economy. Yesterday they began to speak equally boldly about the radical economic reform as the only way out of the crisis situation. And today, "on behalf of and on instructions from all communists of the republic" (kray, oblast) well-placed voices assert that the only solution lies in political reform.

It is not by accident that the political reform emerged in the foreground. For we have not yet had any special successes in the economy on the basis of the normative variant of the radical reform of the economic mechanism. And the first attempts to realize the second, residual model of cost accounting immediately encountered such resistance from the apparatus that it could not be overcome without going to court and relying on the party political mechanism. The new variant of the party state system which would support the radical variant of transformations in the economy cannot be formulated without a reform of this system in the spirit of its democratization. Only with democracy will the position of agencies of the party political system and its leaders and deputies be a reflection of the opinion of the people and labor collectives who have entered on the path of radical economic transformations.

We know that politics is the leading unit. That economic reforms will not lead to victory without political reforms. But we by no means wish to apply this axiom to our day. Yet in thousands of particular cases in economics each day we encounter precisely the party-state mechanism.

What will happen, for example, to the contracts brigade that has eliminated all superfluous workers when they demand from it, say, to people for snow removal?

And when the party raykom ceases to violate the Law on the Enterprise and burden the plants with workers for the vegetable bases, for cleaning the streets, and so forth? When the system of elections in party organizations will make it possible to really bring forth leaders of those who will not think about cleaning snow but about cleaning the administrative apparatus which over the decades has not learned to organize snow removal properly.

In a word, complete true cost accounting and in general any economic reforms that produce results are possible under the conditions of developed democracy—both in the party and in the state.

Our restructuring has entered a critical phase. We cannot adopt the most effective variant in economics without restructuring politics as well.

Why did Lenin call the workers to a political struggle and fight against "economists"? Because it was impossible to achieve economic liberation without victory in the political struggle.

Man is indivisible. So it never happens that the director can sit for 2 hours in the raykom and obediently listen to his mentors and then when he has returned to the office manifest a miracle of activity and independence. A worker who applauds on any occasion and produces a stack of election bulletins without thinking about, never works selflessly in a contract brigade. Man is a single unit and if we wish to see him active and creative at the plant, in the scientific research institute, or in the kolkhoz field, we must be ready to meet him in the same way in the elections to the soviet, when discussing problems of the AES in the Crimea, and in discussions regarding the national problem. And we can find him this way only after a radical reform of the party-state mechanism.

There is a curious historical parallel. I studied the experience of the reform of 1861—the abolition of serfdom in Russia. People do not always recall that even this incomplete, partial reform that extended over 2 decades and was conducted through the forces of the bureaucratic apparatus required changes not only in the economic sphere but also in the political sphere. For example, the creation of zemstvos as self-management agencies, juries, and so forth. Why? Because the very first question—where does a free peasant complain about a landowner who has violated the rules established by the 1861 reform?—required the abolition of the old patrimonial system and the creation of a principally new kind of court.

Another historical parallel is linked to the analysis of the experience of economic reforms in the socialist countries. Take Hungary. Now some of the opponents of the restructuring are not above haughtily explaining: Here is how your reforms have ended! Yes, there are difficulties there now. But we must not forget that almost 20 years ago—the life of an entire generation—Hungary, as distinct from us, was living normally—without waiting lines, having both food and good clothing. And if there are difficulties there now, it is not because the country has undertaken reforms, but because in somethings it has begun to hold back, fluctuate, and put on the skids.

Why is even capitalism drawn toward democracy? Because its basic condition is a free worker bargaining with his work power who is free not only as a worker, but also as a buyer. Without this condition—and it requires at the minimum all formal freedoms—there can be no authentic competition.

The merit of the 19th Party Congress lies in that it boldly and resolutely brought political restructuring to the fore.

Democracy is not merely a benefit for the economy. It is an independent social value.

My misgivings about the "cooling off" toward the economic reform are fed mainly by the very approach to it that prevailed at the conference. Concentrated in this approach were resolute, open criticism along with a lack of understanding that the stage of the political reform requires a new model of the economic reform. Yet if it is true that the economic reform is possible without a political one, the reverse is also true. Any slowness in the economic reform will destroy the political reform, leaving it without a base.

The Model of the Manager

Discussions at the conference evaded the main issue: is it possible to develop further on the basis of the decisions of 1987 or is it necessary to have a new model for the radical economic reform?

The resolutions of 1987, as we know, contained two possible models of cost accounting: normative and residual. Both of them were presented in the documents of the June (1987) Plenum of the CPSU Central Committee and the Law on the State Enterprise. To be sure, even in these materials the normative model was presented in detail and the residual one—somehow fragmentarily. In the package of decisions adopted after the plenum the residual model did not figure at all with respect to central economic departments.

But the nature of the criticism and the nature of the ideas advanced at the conference were such that the conclusion inevitably presented itself: it is necessary to have a new concept of the radical economic reform that relies on the initial ideas of the 27th Congress and the June (1987) Plenum of the CPSU Central Committee that decisively generalizes experience that has been accumulated.

For instance, one can understand the requirement for regulating the state order. It is true that it must be released from fictions like the volumes of production of consumer goods. It is clear to everyone that such a state order covers the sum of expenditures only in the report. In fact much of what is produced is not purchased, and the money that is paid is not recouped. But the bureaucrat is interested not in reality but in the report: that is what he is paid for.

But still the main thing lies elsewhere. Officially a firmly limited state order already means a free market for the other products that exceed it. And the consequences here will be immense. But again, except for complaints about the state order, there has not been the slightest attempt to see what the economy should be like when it is free of the state order which suppresses the independence of the enterprises.

The residual variant has been discussed, but again not everything has been said. For our kolkhozes were on residual cost accounting for dozens of years after collectivization. How did this residual end up at that time? All the same—the kolkhoz workers personally paid through a reduction of the return from their working day because of the mistakes of the bosses. I can see that each year, bogged down by unsolved problems, our management apparatus is ultimately sacrificed by the protector of normative wages—the State Committee for Labor and Social Problems, and will enter on a course toward residual cost accounting in order to make the labor collectives pay for all the difficulties of restructuring. But when will residual cost accounting actually become an instrument for change? Under what mandatory condition? This has not yet been discussed.

The fact that the children's institutions created by certain plants do not accept the children of people who do not work at this plant, for example, has been discussed. But the entire iceberg of the problem has not been revealed. The same thing pertains to housing. For instance, a plant has constructed housing and solved the problem of housing for its own workers. But it has become clear that in the next 5 years this plant, in order not to lag behind the scientific and technical revolution, will have to introduce robots and release several thousand workers. There are new jobs for them but, for instance, they might be in another city. But what will happen to a person who is attached to this city because of his free apartment more firmly than someone who is a serf or has not been given a passport?

Now people, especially those who are directly responsible for holding up the restructuring, have adopted the fashion of reproaching economists for not being "constructive" enough and being taken up in criticism. Therefore I took up PRAVDA of 13 June 1987 on the conference in the CPSU Central Committee before the adoption of the decision about the reform. Here is the content of my statement by PRAVDA: "...To accept a limited amount of the state order. The limit up to which an enterprise can go. It can be 50-60 percent or it can reach two-thirds, but the enterprise must know definitely that one-third will belong to it." The authors of the reproaches can read about this same "lack of constructivism" in the magazine NAUKA I ZHIZN for 1987, No 11, since there were several million copies of the magazine. Therefore when I hear today that we did not anticipate the danger of increasing the state order up to 100 percent I wish to ask: Who precisely did not foresee it? Were they unable to or did they not want to? The reproaches about a "lack of constructiveness" come from those who do not want to change anything significant in the current mechanism. But still again I shall try to present something new.

No victory of strong plants over weak ones or subsequent structural changes in the economy are possible without paid housing, or without the free right to buy and sell

housing in any city as the only logical culmination of the right to change jobs. But in both the first and the second models, the housing problem is not only resolved but is not even raised.

I could give many more examples of the lack of comprehensiveness of both models of the economic reform.

At the same time a number of exceptionally important ideas were raised and substantiated at the conference: concerning the rental contract, the rights of the cost-accounting unit, its interrelations with the ministry and local soviets.... In essence, these ideas cannot be placed in the "additions" to either the first or the second model. It is time for the final step—to form from them an interconnected new system.

The major, basic change should be in fact transforming labor collectives into true managers of the enterprises. There should be no fundamental differences in this respect between the cooperative and the machine-building plant, the sovkhоз and the seed farm.

We have been conducting a reform for 3 years now. But the waiting lines in the stores are the same as before. In the ticket windows of train stations also. The shortage has not decreased. The quality has changed little. If the country has natural resources, if there are hands and brains but it does not get the necessary results, the reason must be sought in the system that links them all together. The variants of economic reform that are being realized are clearly lacking something decisive. What?

In the city of Zagorsk near Moscow there is a plant that has been operating at a loss for many years. It was rented to a collective. The collective discharged every third worker and every second manager. They began to update the production equipment and to use wastes. They fulfilled the state orders. They received income. The average earnings by the end of the year will be 500 rubles a month. The people have ceased to be hired work force. They have become managers. And they immediately imposed order.

If we find managers for public property we will create a new, a third model of radical economic restructuring—the model of the manager. What will be typical of this model?

Along with the Law on the State Enterprise, the Law on Cooperation, and the Kolkhoz Charter, it is necessary to have a major law—the Law on the Socialist Enterprise. It should actually embody the idea that state enterprises, cooperatives and kolkhozes are socialist by nature and are therefore equal with respect to the state. Therefore all taxes (deductions) should be the same. It would be desirable in general for all deductions to be combined into one tax that is determined taking into account the sum of the amounts of gross or net income taken from public resources, the number of employees, and so forth. In exactly the same way all citizens, regardless of where

they may work, should pay from their incomes a unified progressive tax. And taking into account this basic law, it seems to me, we should also revise all particular laws.

The new, third model logically allows only the residual approach to determining income. Here the idea of limiting the state order to a stable proportion is logical—let it be 70 percent, but for everyone without exception. The remaining 30 percent will make it possible to create an entire free market in which everything, of course, will be sold at contractual prices.

Further. All enterprises are divided into three categories. Of oblast, republic and union jurisdiction. The local ones are created and are under the jurisdiction of local (oblast) soviets, republic—republic agencies, and union—union agencies.

The unified tax for all categories of enterprises everywhere is divided into three parts: deductions into the state budget of the union, republic and local soviet. But the proportions of the division can differ: some—for enterprises of local jurisdiction, others—union, and still others—republic.

In the new model of the ministry the agencies that will be in control of everything are the ones that are capable of this—agencies of scientific and technical progress. They must work on the basis of voluntary deductions from enterprises or with funds from the state budget and also credit. Direct requisitions from enterprises are completely abolished.

Along with the ministries the economic departments will also be fully reorganized. The cost-accounting units themselves will be responsible for the results. Therefore the central agencies can be responsible for the total results of the economy only in the new way. If it has become clear that there is not enough sugar in the country, you must act, but you do not have the right to go directly to someone and order him to produce sugar. This will be a principally different, higher class of responsibility. Something like the position of a trainer during a football game—the managers, according to the rules, cannot go out into the field....

The effect of the third model of restructuring will have other consequences as well as purely economical ones.

First, it will resolve the dispute between the staff and democratic variants of restructuring. There will not even be any possibility of the apparatus retaining leadership. Having received real economic independence, the workers will become the main force of the restructuring.

Second, this is the model that is capable of creating an economic mechanism for regional management.

Third, this economic model corresponds more to the democratic model of political and party life. And,

conversely, true democratization of the party and state sphere is possible only with such an economic model.

Who Stands To Gain by Price Increases

If there is an area where the variants of restructuring make it clear that there is an unquestionable need to change over to the new model of the economic mechanism, this section is the problem of retail prices.

It is clear even to a person with a little bit of economic literacy that prices formed during the period of the predominance of administrative methods have a fairly conventional relationship to socially necessary expenditures. Therefore from the economic standpoint the more rapidly we change over to prices that correspond to value, the more rapidly the entire economic reform will proceed. This is why eminent economists devote so much attention to the problem of price revision.

But even the most progressive economic leads are inclined to an overt or covert price increase. In essence, only Comrade Shalayev expressed concern about the growth of prices at the conference. And he discussed not only prices for agricultural products—he discussed all retail prices.

It is no secret that in many socialist countries the new economic mechanism has ended up with a growth of retail prices. We have not really studied this phenomenon. It is one of the dangerous stumbling blocks over which our restructuring must also trip.

Before moving on to the problem of retail prices which bothers me (and, I think, everyone else) I would like to make three remarks about the problem of the price reform in general.

All that we have heard about the official reform—all of its variants—did not mean the appearance of prices that correspond to socially necessary expenditures or reflect the structure of the economy, supply and demand. We are speaking about a one-time price revision from above according to a method established from above. This is a variant of the normative approach. There is no doubt that with this kind of staff revision intelligent leaders try to take economic factors into account as much as possible. Staff establishment of prices and methods of calculating them can surmount the obvious distortions and eliminate the lack of correspondence that has accumulated, but it does not guarantee anything for the future since it does not lead us out of the sphere of the objective mechanism of price determination. For some reason this circumstance does not bother even the active proponents of restructuring.

Second, if one proceeds from the idea of reducing the state order, the entry of the producer into the market and the free establishment of prices there with the agreement between the seller and the buyer, then the reform loses its significance exactly to the extent that the state order is reduced.

Therefore those who rise to the defense of the price reform clearly proceed from the idea of maintaining the state order as the major part of it either want to force freely communicating cost-accounting units to use state-established prices or "bind" them with an established method for price setting. As a result the meaning of independence and the market largely disappear and their possibilities will not be utilized. Many proponents of restructuring do not wish to see this.

And third. It is impossible to mix wholesale prices, state subsidies and retail prices. Many states are giving farmers, regions and areas subsidies and in general are not touching retail prices. And still things turn out pretty well.

Taking these considerations into account let us consider the problem of retail prices. Everyone is correct in speaking about their growth.

What has brought about the increase in retail prices? There are a number of objective factors and usually people speak only about them. Of course it is a matter of the gigantic masses of money accumulated by the population that has been paid in the past but has nothing to buy. Sometimes it is also a matter that our prices in some places have been so high or so low that they have not been appropriate for any standards of the economy. There is a problem of the deficit and the purely absolute shortage of various products, items and services.

One of the factors in the growth of prices are the significant state expenditures in areas that do not create products and services. In fact, if there is too much money on the market and the prices increase, somebody transfers this money into the hands of the consumers. This "somebody" is our state. Up to this point it has been responsible for everything and has tried to coordinate prices, the payment of money, and commodity circulation. Now the situation is changing. It will be spending money without being directly responsible for the balance. It can be no other way with real independence of the cost-accounting units. Therefore it is necessary to have daily supervision and radically revise all channels of expenditures and payment of money by the state.

The growth of prices for cooperative goods is inevitable if for each cooperator there are dozens of state servants who receive wages in the ministries and ispolkoms for whatever you like except for the creation of items.

The program for economizing on state expenditures and the blocking of attempts to print money to cover deficiencies instead of eliminating sections that are inclined toward deficiencies comprise the first area for fighting against the growth of prices.

The creation of cooperatives today usually means growth of prices. But the prices are also growing for state items even with the current cost accounting. But what if residual cost accounting is introduced not to mention

rental? If the state order is reduced to 70 percent, to 50 percent, and the remainder is sold at agreed-upon prices or free prices? What will keep independent organizations from increasing prices?

A unique picture obtains. In the history of mankind the market and commercial production have won out over the natural economy through low prices. But for us it turns out that the larger the market, the higher the price. This is not a problem of the market as such. It is a matter of an abnormal structure of the economy which creates a shortage in one place and surplus in another.

And the main thing is the monopoly of our producers. It is not a matter of cost accounting or the market, it is a matter of the monopolistic position of our enterprises in this market. They have no competitors. Under capitalism a monopolist is one who wins because of effectiveness. But our monopolist is the result of administrative efforts. Our monopolist is not the winner of a competition. Frequently it is an enterprise that offers outdated goods. But it dictates the prices.

Take our Inturist. It is no secret: Prices are increased for foreigners. It is no secret: Prices are inflated for people traveling abroad and for us. And what has improved essentially in the work? If instead of the Inturist we were to have 10-15 independent republic associations with the right to organize tours throughout the country? There would be competition for the clients. And why not conduct an all-encompassing demonopolization in the system of Aeroflot or, for instance, in the television programs? Could they get any worse?

In order to prevent price increases, in addition to merciless economizing on state expenditures, it is necessary to develop and implement a program of demonopolization in the country. Demonopolization is a mandatory condition of the third model—the model of the real market. It should envision a breaking down of the associations; the creation of competing enterprises in the next few years; the enlistment of cooperatives as competitors; in the creation of joint enterprises. And, finally, we should simply force imports and not reduce the state order but change over to residual or rental cost accounting those enterprises that are still monopolists. If this is not done, instead of an increase in effectiveness the reform will lead to an increase in prices.

The problem of retail state prices for meat and milk is considered to be especially crucial among all the problems of retail prices. Here it would seem that urgent measures are needed for otherwise there are no incentives for producing meat and milk.

Well, the question of incentives is linked not to the retail price but to the subsidy from the state. And I do not understand why there will be paradise for the producers if in the store the buyer begins to pay certain amounts more and receive the same sum from the state in the

form of compensation? There will undoubtedly be an effect from reducing operations for transferring money. But this effect involves a number of more serious problems.

They say that our expenditures are too great in producing meat and milk and that they are not comparable with retail prices. And our retail prices are lower than those throughout the rest of the world. But where do we get these high expenditures if the earnings of a resident of our rural areas is incomparable with the income of a farmer? Of course, labor productivity is lower, but that is not the main thing. The main thing is not the high expenditures themselves but the types of expenditures, their nature.

Say the prices for a carload of perishables have increased, but what has changed? The payment in hotels has increased—what has changed? Aeroflot has deprived students of their special rates: this, you know, is your cost accounting. Perhaps the waiting line for airline tickets has decreased? But why can we assume that our Agroprom will be an exception and higher prices for meat will be a receipt for additional payments for poor work in the past and a coupon for additional payment for poor work in the future?

Were today's prices too much for the Kazakhstan worker Khudenko? Do today's prices frighten the Arkhangelsk peasant, or the renters in the Moscow area? No, they do not.

For whom do today's prices sound the death march? For the majority of kolkhozes and sovkhozes created by Stalin, preserved by Khrushchev, and fed during all the years of stagnation and also the entire party-state superstructure over them. For those who cannot conduct restructuring. Those who are holding up the family contract, correctly hearing in it news that it is time to eliminate the Agroprom and hundreds of thousands of cozy positions in other departments.

This problem has another aspect. In discussions of prices of meat why must we always involve the government and the Central Committee? Why must they cover the bungling bureaucrats?

"But what else?" people may say. After all, the meat goes to the state! But would it not be simpler to reduce the amount of the state order by half? Then reduce the subsidy by half as well? Then each renter would willingly do more than prescribed by the state order since he would ship all of this and sell it himself or through another cooperator.

In this variant prices will increase, but not at the discretion of the bosses but as a result of the direct interaction on the market. There will be certain prices in Estonia, and others in the oblast where little is being done about the family contract. There will be certain prices in the

spring and others in the winter. But these are after all market prices and the Central Committee and government should not and cannot be responsible for them.

And those that are state prices can remain at the previous level—as long as there is no surplus on the market and the prices there do not begin to decline.

It is very important not to tamper with state retail prices. For these are a clear indicator of what the restructuring means for the people. Of course an abundance with high prices is preferable to empty counters. And it is still better for this process to take place on the market, without a "contribution" from the state. If the price on the market increases the money goes to the producer. If the state retail price increases, the money goes to the bureaucrat.

I am not even mentioning the fact that nobody will ever believe that a reform with transfer of money from pocket to pocket conducted by those who brought agriculture to the end of its rope, conducted by bureaucrats, will not end up picking the pockets of the people.

It is appropriate to recall that N. S. Khrushchev's concession to the pressure of the apparatus in the question of increasing wheat prices cost us dearly. At that time the new prices did not raise the economy, there was no more meat, but the people's faith in N. S. Khrushchev's reform and in him himself were undermined. Nikita Sergeyevich paid dearly for his inability to control the apparatus effectively. But as a result he lost the support of the masses, he was left face to face with the bureaucrats, and the question of his removal within 2 years became a matter not of politics but of maneuvering behind the scenes.

In order to protect the people from price increases it is necessary at the minimum to calculate at the end of the year the coefficient of price changes, to state it at the session of the Supreme Soviet, and to automatically change pensions, stipends, and all firm salaries. Prices should become an implement for purging the economy of unnecessary agencies and ineffective enterprises.

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Differences Between State Production
Associations, Main Administrations Few
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[Article by N. Lyaporov: "New Title—Former Style"]

[Text] When an engineer of the Moscow GPZ-2, communist Vladimir Kozyr, was offered a post in the GPO [gosudarstvennoye proizvodstvennoye obyedineniye; state production association], he fell to thinking. It was pleasant to think that they had taken note of him and the

post promised to be a good one—chief of a production department. But the GPO is not a plant—how many critical arrows have already been aimed at the administrative staff.

"But a GPO is not a former ministerial main administration" stated the engineer, it will defend some principles: cost accounting, collaboration with enterprises. And a chief consideration here is not trivial matters but rather promising undertakings and strategy. In short, creative work."

We were persuaded and we met with Vladimir Petrovich in his small office on Mrakhlevskiy Street, where the new Podshipnik GPO was established only two steps away from his own branch headquarters. Naturally, a discussion initially took place concerning his former plant responsibility (also considerable—Kozyr was the deputy chief for production). We began comparing it with the present responsibility.

"Here the work is quite different" commented a participant in the discussion, while failing to display any enthusiasm, "For the most part, it is still telephone and paper work and I am becoming accustomed to the work."

What is it that does not please the former plant leader in his new position and in his administrative easy-chair? Before answering this question, allow me to deviate slightly.

It is known that in recent years the structure of the branch ministries has changed and been reorganized. USSR Minavtoprom [Ministry of the Automotive Industry] is no exception. Special partiality was shown in the handling of the production main administrations. And it is easy to understand why. For it is precisely at this administrative level, between the ministry and an enterprise, that one finds the most use being made of control and command-administrative methods which for a long period of time have impeded the work of economic officials and the collectives. Initially, these main administrations were reorganized into all-union production associations. Thus we witnessed, in particular, the appearance of the Soyuzpodshipnik VPO [vsesoyuznoye proizvodstvennoye obyedineniye; all-union production association], Soyuzavtoelektropribor VPO and others. Alas, before the workers of the sub-branch could blink an eye, these VPO's undertook to command and support the enterprises in a very zealous manner. Does this not represent a return back to the former main administrations?

"But life itself will no longer accept them" reflected the secretary of the party committee for USSR Minavtoprom A. Yemelyanov, with whom we traced these structural changes, "Under the new managerial conditions, once the Law Governing a State Enterprise entered into force a completely different organ of administration was

needed—a cost accounting organ which would unite the enterprises on a voluntary basis. In accordance with the concepts of the specialists, the GPO must serve as just such an organ."

But has this come to pass?

It is still too early to tell, since the GPO is taking its initial steps. Yes and we have created only two of them—Podshipnik and Avtoelektropribor—instead of the eight that were planned. We are hearing various opinions concerning them. For example, we overheard the following comment: "Why do we need this GPO? It is the same as the main administration; there is no difference. It is just an unnecessary element." However, a weighty argument is raised by those who defend the state association: the GPO's were created not on the basis of an order from above, but in accordance with the will of a council of directors representing the enterprises included in it. That is, the democratic method was employed. And the general director of the association is elected by this same council. Thus this new administrative element arose based upon different principles and its operational style must thus be different.

In what way? This is by no means an idle question. During the July Plenum of the CPSU Central Committee, it was noted that the authority of the administrative and personnel organs of the apparatus will depend to a decisive degree upon how rapidly the organs of administration will find their place under the new conditions and upon how successfully they will be able to master the new managerial methods and establish new relationships with the enterprises.

It is no secret that the former administrative style left a bad memory. At the beginning of this year, during the party conference which discussed the work of the party committee in directing the reorganization, it was stated: personnel in the ministry are often evaluated not on the basis of their ability to solve key problems concerned with branch development or to find efficient administrative methods, but rather according to their ability to fulfill the plan or procure and ship to a failing enterprises the needed parts, units and materials. In other words, engineers and expeditors and not creative workers were of concern here. The practice of mutual forgiveness developed in the subunits and a sense of well-being was created.

Was success realized in leaving the well-trodden track and finding other approaches?

"This is a difficult question" stated the secretary of the party committee. A conclusion could be derived from his response. The party committee, the board and all of the communists were quite concerned with the structure of the apparatus—they discussed and examined it. They were all fairly tired of doing this and thus a definite calm is being experienced at the present time. They have no time for the new GPO's. Perhaps this results from the

fact that these subunits are considered to be independent and that they go beyond the framework of the ministerial apparatus. But the communists belong to the party organization of the branch headquarters. Can the party committee release them from its field of vision?

Galena Nikolayevna Suslova, the secretary of the party bureau for the Podshipnik GPO, is in a good mood. The association has received some energetic personnel from the enterprises, they constitute a fresh stream of workers and the work is improving. A report has just been delivered to me and it reads as follows: with the creation of the GPO, operational efficiency is improving as a result of democratization of the economy and administration, production solidarity and the introduction of new managerial forms. There are figures here which confirm this optimistic report.

"Yet the well known director of the Saratov GPZ-3 Yashkin evaluates the situation in the sub-branch somewhat differently" I stated in an attempt to dispute the optimistic points of the report, "Recently he stated in one of the central newspapers: the plant was a leading one for 20 years, it developed production in a fine manner and it furnished aid to the city. But at the present time it is near bankruptcy—it must be assumed that the ministry, not without the assistance of the GPO, will take over the lion's share of the income, while devastating the material incentive fund. The personnel will abandon the plant. How does this agree with the "fresh flow" of personnel for work? Moreover, is it possible that this is not a singular incident?"

"Most likely this is not a singular incident" agreed Galina Nikolayevna, "But you had best discuss this subject with our specialists."

Suslova and a leading engineer of the Technical Department—one of the principal departments. She could, in all probability, share her observations. Was there really nothing to say? Moreover, accepting her advice, I met with and held a discussion with the communists. One of them was V. Kozyr—if you remember, the engineer with GPZ-2 and chief of the Production Department. Let us again return to him.

Thus, why is it that Vladimir Petrovich, a recent plant leader, does not share the optimism expressed by the secretary of the party committee? It turns out that his new position produced many surprises for him. Kozyr discussed these and I myself was able to see these surprises with my own eyes.

We had scarcely begun our discussion when an important citizen bearing a large briefcase literally burst into the office. Initially it was easy to divine his words: before us stood an expediter! Yes, this was a repeatedly derided and swaggering individual who tirelessly rambles about the country carrying out the same task: eliminating the deficits in materials and component parts, accelerating shipments and so forth. Without wasting any time, he

withdrew a pile of papers from his briefcase and before my eyes he energetically attacked the chief of the department. A certain plant is disrupting shipments and complaints are being made to the GPO. Kozyr found himself engaged in a skirmish with the unexpected guest, the expeditor turned out to be an experienced individual and the new administrator had to devote attention to his papers.

Does the department frequently have such guests?

"Enough of them. And in the intervals, we work on the following" Vladimir Petrovich withdrew from his briefcase a pile of fresh letters and telegrams received from enterprise customers. The subject was the same: concerning deliveries. The entire department—consisting of approximately 20 specialists—was mainly engaged in such coordination. However much one desired to do so, it was difficult to refer to this as creative work.

But indeed it was mentioned in the report that the national economic requirements for bearings (taking into account import purchases made with one's own currency) are being ensured completely. Direct contacts are being developed between the plants and customers and this should reduce to a minimum an invasion by expeditors.

"The report is one thing and life still another" stated V. Kozyr with a sigh, as he glanced at the door—the next wandering guest was already knocking. For my part, when bidding farewell to the head of the office, I recalled an open party meeting in the GPO—it was in April of this year—during which one of the communists stated: "Just as in the past, in the old main administration, we spend a great amount of time composing various reports and from morning until night we collect data on production and shipments. It does not appear that our production service has changed its style, but rather our reorganization amounts to a shuffling of plants among curators. But, as the saying goes, this has not brought about a change in the total amount of our creative work."

It can be stated that this statement appeared as the voice of one crying in the wilderness. There was no reaction!

But could it be that it was only here that such a situation and such an economic operational style could develop? And is the picture different, for example, in the other Avtoelektropribor GPO? If this was only so! Even there the waves of minor affairs and notorious instability overwhelm the departments quite frequently and also at the next stage—in the offices of the general director of the state association.

From one of them—G. Zharkov (he manages production) met with us twice and on both occasions the third participant was an expeditor. These meetings consumed the lion's share of Zharkov's working time. Did he have any temporary duty. Yes, he recently visited a cable

plant in Kuybyshev. No, this was not our plant, but rather one which belonged to another branch. What did he do there? I am ashamed to state that he also performed in the role of an expeditor. The Kuybyshev workers owed us more than a dozen tons of enameled wire, as a result of which work has come to a halt in some departments. A trip was necessary in order to shake up the operations.

This then is the operational style that has developed. In the GPO, many leading positions, commencing with the general director, are occupied by recent plant leaders and leading specialists. During his meeting with delegates to the 19th All-Union Party Conference and branch workers, Minister N. Pugin boasted: during the course of reorganizing the ministry, success was achieved in strengthening it through the addition of capable workers from the various areas. It is up to the minister to make a judgement as to what extent, during this period devoted to reducing the size of the administrative apparatus, such a personnel rearrangement is considered advisable today, in light of the fact that it tends to weaken the plants. But if intelligible personnel are invited into the apparatus, then surely importance must be attached to ensuring that they will find here an expanse for truly creative endeavors and for executing an effective strategy and not drown in a flow of papers or be transformed into expeditors.

Is this not a subject which the ministry's communists should devote some thought to? Yes, the party committee and the party bureaus of both state associations are in agreement that this is a vitally important subject. Thus we are waiting until experience is accumulated.

It would appear that we have a suitable pretext. But indeed it could happen as follows: the experience accumulated could be other than that which we are awaiting! And on one fine day when we glance at this experience more closely, it may turn out that the skeptics were right: the GPO is the same main administration, only swollen considerably. It bears mentioning that the Podshipnik and Avtoelektropribor organizations are already larger at the present time than the former main administrations.

I read through the written material and felt that the GPO specialists could reproach me for being unfair. Indeed, they are confronted by large problems and are not merely concerned with instability!

For example, they became interested in the problem of bearing plant specialization. The deputy general director of the Podshipnik Plant for economic matters A. Simonov discussed this subject with some enthusiasm. Beyond any doubt, this is an important matter and for enterprises of the sub-branch it is simply an urgent undertaking. There is good reason for it being compared on more than one occasion to the former main administration and VPO [all-union production association]. Simonov believes that more opportunities exist today for carrying out such a plan. However, according to responses being received from the various areas, the

work is still not advancing beyond the discussion stage. Just as in the past, the enterprises are producing many different types of products and yet owing to frequent readjustments they are unable to make better use of their equipment or to raise their production profitability.

The communists believe that more emphasis should be given to having the large-scale problems of the sub-branches solved by the councils of labor collectives, with representatives of these collectives being invited to attend meetings of the councils of directors. A desire is being expressed to create a council of secretaries of the party organizations of sub-branches. But once again all of this is being lost in endless discussions, there is clearly not enough lively search going on and former habits and stereotypes tend to prevail. Is this not why certain plans, seemingly good ones, are not finding a ready response down below but rather are hanging poised in midair?

Within the GPO, thought was given to organizing a so-called fourth processing stage for metal at some of its enterprises—in the opinion of the specialists, this would aid in improving the system of supply for the plants. The council of directors was not opposed to this plan. But at the plants, where this plan was to be carried out, a certain lack of understanding prevailed: why do we have to produce everything ourselves and why should we be transformed into a natural economy? Yes and how is this to be accomplished if we lack manpower and our current account is empty? Still another idea was contemplated with no enthusiasm being displayed—centralization of the marketing of the products. Some GPO workers were delighted with this undertaking, but there was still the opinion held by the chief engineer of the Moscow GPZ-1 A. Pchelina: it could give rise to an additional paper merry-go-round and hinder truly progressive work such as the development of deliveries based upon direct agreements.

Such "discrepancies" in understanding the tasks both below and on high—were these not the result of insurmountable alienation of managers from those being managed and the use of bureaucratic approaches in carrying out the work? In some instances, the council of directors becomes still another fig leaf concealing the same command-administrative methods.

No, the party organizations of the GPO and other subunits must not avoid such questions. Yes and the party committee of the ministry must not stand off to the side and ignore them. Still another matter is how they are to be handled and how a true solution is to be achieved.

"The old methods are not suitable and we still have not found new ones" stated the secretary of the party committee A. Yemelyanov.

The situation for the communists of the branch staff is truly not an easy one at the present time. But it is appropriate to recall once again the wishes from below, from the communists of enterprises: it is more bold to

search for answers for the problems at hand in live practice. To look for them and not to be satisfied with the old approaches. To act and not to wait.

Shortcomings in Ministry Restructuring

18200054 Moscow *EKONOMICHESKAYA GAZETA* in Russian No 35, Aug 88 pp 6-7

[Discussion by various managers moderated by N. Yakovchuk and L. Kotin under the rubric "The 'EG' [EKONOMICHESKAYA GAZETA] Business Club": "How Much Do Managers Need? How Restructuring of the Ministries is Proceeding"; unattributed passages in italics and boldface are moderators' remarks]

[Text] One of the most important tasks in restructuring management is to find an association between the center and localities, between the state and public areas, and between management and self-government which will make it possible to take full advantage of the vast potentialities of socialism.

The Law on the Enterprise provides free rein for labor collectives' initiative. They should protected from petty tutelage and administration by injunction and from unwarranted interference in their day-to-day activities by ministries and departments.

At the same time, it is necessary to improve the effectiveness of a planned organizing principle in determining the paths of national economic development and to concentrate the efforts of sectorial headquarters on strategic problems.

Instead of the usual resource distribution and day-to-day administrative tasks, the ministries, as the organs of national management under the new conditions, will have to carry out substantially different functions, such as working out scientific and technical strategy in the sector, determining the fate of economically backward enterprises, changing the specialization of individual production facilities, and seeing that fundamentally new types of products are brought into existence.

But the present nature of staff work, which is especially "paper-oriented," must be radically changed for this.

To what extent have we managed to resolve this problem over the past 6 months? What is the best way to reorganize the work of the ministries' central machinery and change its style and management methods?

This was the subject of discussion at a meeting of the "EG" Business Club." The persons who took part in it are concerned with this problem on both a theoretical and a purely practical plane.

Not The Number, But The Ability

The number of persons working in the central organization of practically all ministries has been reduced by 30

to 40 percent in recent months. This involves many thousands of persons. Hundreds of thousands are continuing to work in them. Is this a large or a small number?

On one hand, we hear the general chorus of complaints: the work day has been extended until nighttime and we catch up Saturdays and Sundays, but the work does not diminish. The workload for specialists and managers has increased so much that working in the central organization has become absolutely back-breaking. The number of "assignments" is snowballing, the length of time for studying documents is being compressed to the limit, and there may be one, two, three, or five cases in which drafts that have been prepared cannot be approved, or even worse, fundamentally important documents that have just been approved have to be canceled after a short period of time...

On the other hand, the number of complaints from enterprise workers about the volitional dictates of the ministries, the undiminished flow of unnecessary directives, and the innumerable demands for all kinds of reports and accounts from the work places are not decreasing. And the delegates to the 19th All-Union Party Conference made an assessment that was absolutely correct in the resolution "On the struggle against Bureaucratism": "The management machinery continues to be unjustifiably cumbersome. A large part of it is out of touch with the requirements and interests of the public. The measures that have been worked out by the party to reform the economy...often are paralyzed by the bureaucratic actions of ministries and state and economic organs..."

So just what is the problem? It would seem that life at the ministerial level should become somewhat easier and that the decisions it makes would be more effective with the transfer of a large number of management functions and powers from the top down.

But this has not happened, the meetings participants said. B. RUMYANTSEV, manager of a knitted goods machine building plant, and Ye. POPOV, manager of the "Sportznak" Plant, cited examples of the ministries' outdated approach to management of subordinate enterprises and the intermediate management components that are being retained unnecessarily.

Serious shortcomings in establishing standards and the tendency to retain the previous command methods of management under the cover of new terms, particularly in organizing foreign trade activity, have been noted.

G. SLEZINGER, doctor of economic sciences (NII Truda [Scientific Research Institute of Labor]):

What criteria can we use to make a judgment on the status of restructuring in the management machinery of one sector or another? The principal criterion is how the

activity of a sectorial ministry is reflected in the enterprises' work. Let us take the Moscow Oil Refining Plant for example. The Ministry of the Petroleum Refining and Petrochemical Industry set such profit withholding taxes for it that the plant does not even have the funds it needs for renovation at its disposal. How does this situation differ from the one before, when it was "tied hand and foot?"

Ministry employees taking part in the meeting acknowledged that they have not even managed to reduce the volume of correspondence during the restructuring period.

V. ZIMOKHA, an administrator in the USSR Ministry of Instrument Making, Automation Equipment, and Control Systems:

With the abolition of VPO the ministry's volume of correspondence has increased by 35 percent (it rose by roughly 20 percent every year before this). In 1987 we shifted to full cost accounting, and the document turnover increased even more. Why? Many factors have had an influence here: state acceptance, and the absolutely backward organization of supply. And when we need a small quantity of a material with special properties, the correspondence is never-ending. The contradiction lies not only in the fact that we have given independence to enterprises which already have five-year plans that have been approved. But this is even worse: we have been forced to "release" additional quotas for these plans and we have already issued them for 2 billion rubles, but they are not supported by resources if they are not part of the state order. This is also why the correspondence is increasing.

Another reason is that the economic departments are holding on tightly to their previous functions. For example, the USSR Gosnab insists that the norms for materials consumption be approved by the ministries, not the enterprises. The USSR Ministry of Finance is introducing unnecessary regulation in parts of the work force. This is also a source of unnecessary correspondence.

L. KACHALINA, doctor of economic sciences (MGIAI [Moscow State Historical Archives Institute]):

We have all been struggling for many years to reduce the turnover of documents. But it is increasing. We are all opposed to unwarranted paper work, but masses of more and more new documents make their appearance. In 1987, for example, the recently established management units—the USSR Gosstroy and the USSR Council of Ministers Bureau for Machine Building—contributed a very substantial volume of documents to the ministries. The fundamental restructuring of ministries' functions and the reduction of up to 40 or 50 percent of the personnel in economic management, unheard of over the past 50 years, is making the question of reducing the labor-intensiveness of management functions, particularly by reducing the labor inputs for paper work, more critical than ever. But not one of the general economic departments—not the Gosplan, the Ministry of Finance, or the Goskomtrud [State Committee for Labor and

Social Problems]—has taken steps toward the reduction, and obviously the rationalization required, of those combinations of documents which they are circulating in the economic mechanism in accordance with their functions. And there are mountains of paper! For example, the USSR Ministry of Instrument Making, Automation Equipment, and Control Systems uses 1,700 different types (!) of documents, and 1,300 of them are circulated between the ministry and enterprises. And it is no secret that some documents that are highly labor-intensive to produce are not working at the destination for which they are intended by any means.

The Computer Is Not A Panacea

V. VASILYEV, candidate of economic sciences and chief of a department of the Central Bureau of Labor Standards:

The paradox is that the difficulties now are not in defining the ministries' new tasks, but in selecting those traditional functions which they must relinquish after they are shifted "down" in conformity with the Law on the Enterprise.

Let us assume that all these questions will be resolved quickly, and then the question will arise for us: how many persons in the ministry should carry out the remaining tasks? The organization and norm setting of management work will play a decisive role here. Studies show that ministry employees now have a time reserve of roughly 20 to 30 percent.

"The number of employees really necessary may be determined with a high degree of reliability based on the accurately defined functions of the ministry and the standards of labor-intensiveness of each function," the discussion participants said.

N. ARKHIPOVA, a lecturer in the Fundamentals of State Administration Department of the MGIAI, emphasized that "those ministries that have carried out such work are experiencing much less difficulty now when staffing is reduced, inasmuch as a work force that is scientifically justified and calculated in accordance with labor-intensiveness is substantially smaller than today's work force."

However, in most cases the ministries have not made such attempts, and by trying to reduce the work force by purely mechanical means, they have experienced many problems. Managers in a number of ministries have been speaking about this in particular.

B. KHOROSHEV (USSR Ministry of Finance):

Yes, I agree that staffing should be reduced, and it should be mobile and inexpensive. But after all, the 30, 40 and 50 percent that have been set—these are volitional decisions. There is no scientific basis of any kind for them. Everything depends on how a manager has been able to justify the "protection" of one department or another.

Norms are good, but they are sometimes not applicable. We are living in a time of extreme shortages. I would like to analyze the mail personally: the regions where most letters are coming from, the questions involved, and the initial cause... But there is no time.

I think there is one way out—shifting to the application of modern management procedure. We need computers, and displays, and telex, and "Shtrikh" units to transmit information, and stenographic machines. In a word, we must make use of all forms of technology to receive, process, and synthesize information.

A. IOFFE, director of the TsNIL [Central Scientific Research Laboratory] of Personal Computers of the USSR Goskomtrud and the USSR Academy of Sciences:

I would like to comment briefly on the fact that automation of management operations has been mentioned here. Everyone has a great many illusions here. For some reason it is thought that labor productivity increases if a computer appears on a desk. Not at all. If a typist types 1,000 pages instead of 300 in the same amount of time, the productivity of her work has increased. But useless information may be typed as well. We are not thinking about this at all. Are the employees of administrative organs producing just paper or are they providing information which will be applied—this is the main question.

We now have a typically expensive approach: give us a computer! The more they have, the more prestige they have. But what is the gain from this? The computers and data must be united in a single product: an automated workstation. They are being established today by anyone who will take the trouble—both cooperative members and individual businessmen. For very large amounts of money, incidentally. But the gain from these uncoordinated ARM's [automated workstations] will be no greater than from large computers which stand idle or perform simple tasks—personnel and wages. And this is called an ASU [automated control system]!

The same thing can take place with the mass introduction of personal computers unless a well-thought-out systems policy is developed. But I do not sense this at present. The State Committee for Computer Technology and Information Science is responsible only for service and it is seriously developing a programs policy, but the equipment is in the hands of the producer ministry.

There is unquestionably useful experience in computerizing routine operations (standard texts, record-keeping in mail and checking departments, and so forth). What previously was accomplished in a 6-month period is now being done in several days by means of synthesizing master forms of data. We must make a further shift toward analytical work, but there is no technology for analysis today.

On The "Incoming-Outgoing" Production Line

A. NEDOGONOV (USSR Ministry of the Coal Industry):

In working out a staffing schedule, taking a work force reduction of roughly 40 percent into account, I had to find something to base this on, and I went to other industrial ministries to see what their approaches were. Our problems proved to be identical. Less documents, but qualitatively different ones, are required with the introduction of the Law on Enterprises. Then, nearly every specialist is asking for information from his local area, and this is a colossal amount of paper work. Although I should say that document turnover in the Ministry of the Coal Industry is being reduced systematically. But documents are being processed slowly, by hand.

It often happens late at night, when everyone has gone, the minister telephones: "Listen, I need such and such a document right away." The records office is closed and the card indexes are closed. But our reference system is an anachronism. Management technology is penetrating the ministries little by little, of course. But the trouble is that there are really no well-thought-out, perfected management technologies. Each ministry has its own specific product—ours is coal, and others have machine tools, and so forth, but the actual "product" of any ministry staff is the same—management decisions. Nevertheless, we do not have a unified system of documentation and our GOSTs [State Standards] are the most optional for application. The standard structures are only half-completed. For the present, figuratively speaking, we are simply standing on the production line for documents—incoming and outgoing—and anyone of us who is able is trying to cope with it...

V. TUREYEV, candidate of economic sciences and administrator in the USSR Ministry of the Maritime Fleet:

That is true. We are all "stewing in our own juice" in restructuring the ministries' structure, staffing, and the style of work itself. There is no serious organizational or ideological principle and there is no generalization of practical experience. For this reason, ministries' actions are chaotic and unsystematic in this area. And even science has proved to be helpless, unfortunately; it has not helped us with anything. For the present, all work is built on the personal enthusiasm of individual workers with initiative, nothing more. This situation must be drastically changed, and in a short period of time. Otherwise we will not improve the staff's work efficiency.

G. DZYUBA, office manager in the USSR Ministry of the Electrical Equipment Industry:

The quality of documents, alas, is not being changed. More often than not subunits ask enterprises for

information that is repetitive and they prepare orders which conflict with each other. In their letters to the local areas, they send opposite responses in the same frame of reference...

Managing In A Scientific Manner

G. LATFULLIN, head of the Management Theory Department of the Moscow Management Institute imeni Sergo Ordzhonikidze:

The process of restructuring in ministries and departments is proceeding slowly. Sharp criticism, justified in many respects, has been directed at them. But for the sake of truth I will say that we must not only revile the "bureaucrats," but objectively examine the situation that has taken shape and clearly designate the tasks, functions and responsibilities of ministries, taking the most important new legislative acts into account. After all, it is precisely the juridical discrepancies and the broad interpretation of articles in the Law on the Enterprise which lead to conflicting economic situations.

I am convinced that the work of fundamentally restructuring the staffing cannot be entrusted solely to the managers themselves. Planning organizational structures is a most complicated task. Scientists and the appropriate institutions must be involved in it.

Staffing reorganization should not become a "natural calamity." It must be prepared for in advance after carefully working out a plan of actions and selecting the personnel ahead of time.

I. BACHILO, doctor of juridical sciences (State and Law Institute, USSR Academy of Sciences):

The country does not yet have a "head," an organ which is permanently engaged in optimizing the structures and processes of management. But after all, the problems of management are endless, and they will be under communism as well.

Restructuring affects three areas: structure, functions, and technology. They spoke about the structure and functions extensively at the 27th Congress and the 19th All-Union Party Conference. But the problem of management technology is a blank space. We are reducing personnel and restructuring functions, but we cannot shift to the new work system without new management technology. Previously, current problems in plan fulfillment were resolved at the center, but now sectorial personnel should have the information for analysis. Completely different approaches are needed for both the economic planning and scientific and technical service and in construction. Development of information science should become the leading direction.

But the USSR State Committee for Computer Technology and Information Science is not prepared to solve these problems. They view information science there

very narrowly—as a set of programs which already exist in a machine. But this is far from being everything. Information science has been called upon to support all functions with data and to make a model for each function in order to obtain a final document, to ensure that this is not "accountability" as an end in itself in the current interpretation, but flows of information from primary sources which automatically provide "the final product" to the consumer. Then it will not be necessary to write up papers. But the appropriate programs are needed. And what is more, neither the Ministry of Instrument Making, Automation Equipment, and Control Systems nor the State Committee on Computer Technology and Information Science is working on such programs.

A question from "EG" for the USSR State Committee for Science and Technology:

Why has the problem of developing a modern, integrated management technology not been resolved to date, although a major scientific research institution, the VNIIPPOU [All-Union Scientific Research Institute of Organization and Management Problems] was established especially for this in 1971 and continued for 16 years in the GKNT [State Committee for Science and Technology] system, and the Institute of Management Problems and dozens of other scientific institutions of similar specialization continue to function?

Training Antibureaucrats

Along with the combination of problems we have already mentioned, one more is extremely important: the preparedness of employees in the state apparatus to organize and resolve the fundamentally new tasks which are on the agenda today.

The discussion participants were unanimous in agreeing that the problem of managerial personnel is a crucial problem in restructuring.

G. SLEZINGER:

Who is working in the ministry apparatus today? What is the level of skill of these persons and the extent of their training, not for the functions they have been performing to date, but for those which they will have to carry out? After all, they are completely different! The basic sub-units of the ministry apparatus have mainly been staffed by persons from enterprises. They acquired their experience in staff work by absorbing the atmosphere which prevailed in a given ministry. The style and methods of work were continually reproduced in the process.

Now the ministry should not be managing enterprises, but THE SECTOR, the system, and this requires completely new skills. I believe that it is now legitimate to demand that persons who work in the ministry apparatus

be especially trained in an institution for skill improvement, let us assume, or in the Academy of the National Economy and other educational centers.

How do we mold the new type of specialist-managers—the "antibureaucrats?" L. Kotin, N. Arkhipova, N. Starov and others devoted their statements to this problem. They spoke about making the training more specific for those who specialize in handling documents in the area of state administration, about skill improvement systems for ministry staffers, and about the prospects for training modern managers.

A question from "EG" for the USSR Goskomobr:

There is a very typical letter from a reader in the current editorial staff mail, literally a cry from the heart. Gennadiy Antonov, a worker at a machine building plant, writes that he was recently elected chairman of the labor collective council. He immediately became acutely aware that he did not have enough knowledge and that he had to extend it quickly. So this person goes to an institute, to an evening class at the same MGIAI, let us say, which teaches the fundamentals of state administration. They tell him in the selection committee: "We are prepared to teach you, but for this...you must transfer to work as a secretary, an inspector, or a clerk." (!)

Isn't the continued retention of such a narrow "categorization" of specialties, where a person is being trained without leave from work, a casuist throwback to the worst times of the stagnation? After all, with such an approach to the training system isn't it apparent that the "special paper-shuffling bureaucrats" will be reproduced again and again? Wouldn't it really be more correct in our time of active changes to provide access to basic managerial knowledge to everyone who wants to have it, and to production workers first of all?

So the discussion of current practice in restructuring the central staffs of sectorial ministries has shown that carrying out the assignments to mechanically reduce the work force, even substantially (from 30 to 50 percent), is still not resolving the problem of substantially improving their work. The point is that these targets were set purely volitionally, without any kind of scientific study and without accurately defining the new functions of the sectorial headquarters staffs.

Those taking part in the meeting emphasized that science is seriously lagging behind the requirements of everyday life in this area as well. In spite of the considerable number of scientific organizations which are involved in optimizing management, there is practically no research today which can serve as any serious basis in selecting the best solutions with respect to a suitable structure for managing the national economy, the change in the specific nature of the functions of economic management organs under the new conditions, and efficient organization of sectorial headquarters.

With proper scientific study of these matters, the meeting's participants said, it might appear that some organs are not needed at all and that it is expedient to increase the work force in others.

This is what the sequence of our actions should be in improving the staffing, in the opinion of those who spoke: define the functions of "outside" management necessary to today's enterprise; select an organ to which they may be entrusted; calculate the labor-intensiveness of these functions when oriented toward efficient technologies, methods, and systems of office facilities; and finally, plan a work force which possesses definite knowledge and skills on this basis.

This is not a simple process, of course, the discussion participants said. But the sooner we undertake this work, the better.

INVESTMENT, PRICES, BUDGET, FINANCE

**Academician Renounces Earlier Price Policy,
Supports Indexing**
*18200078 Moscow SOTSIALISTICHESKAYA
INDUSTRIYA in Russian 30 Oct 88 p 2*

[Interview with Stanislav Sergeyevich Shatalin, member of the USSR Academy of Sciences, by A. Yevgenyev: "I Want To Acknowledge My Mistake"]

[Text] The following episode occurred in a recent meeting of the Economics Department of the USSR Academy of Sciences. S. Shatalin, member of the USSR Academy of Sciences, took the floor and uttered the phrase which we have put in quotes. You will agree that a recognition of this kind is itself not a very widespread phenomenon in the scholarly world. And this one did not have to do with particulars, nor shades of difference, but with the most important element of the new economic mechanism: the reform of pricing, which is now being so much talked about and debated. Our interview with this scientist began in fact with a discussion of that segment of the meeting.

[Yevgenyev] Stanislav Sergeyevich, I closely observed the audience during your "confession," and I would not say that it was shocked or astounded. It was something new for me personally: after so many speeches, so many articles both in specialized publications and the popular press, and then suddenly: "I am renouncing the position I took."

[Shatalin] But what kind of reaction did you expect? As far as I know, today many of our economists are looking at the upcoming reform in the field of prices, retail prices in particular, differently than, say, 2 years ago. Indeed, if we start with theory, there are many things here that need to be changed. Changed, in fact, immediately. But a reform of this kind cannot be undertaken with closed eyes, without taking into account the entire totality of the circumstances that exist.

[Yevgenyev] What do you have in mind?

[Shatalin] Recent years have proved to be difficult ones for our economy, they have not had the impact on the people's well-being we would have liked. I will give a few figures. According to data of Goskomstat, during the last FYP the per capita consumption fund rose at an average annual rate of 2.2 percent. In 1986 and 1987, this indicator was 0.2 and 1 percent, respectively. It is evident just from these computations that the situation in the consumption sector has gotten worse. But the official statistics do not take into account a very essential thing—the inflation which has been with us for a long time now. We all notice that life is becoming more expensive. The cost of goods is rising, inexpensive articles are disappearing from the shelves and making way for more expensive ones. So that if we make the same

calculations so as to take inflation into account, then we find that the consumption fund rose in the 11th FYP by an average of only 1.1 percent, and then in fact it began to drop: by approximately 1 percent each year. The curve of the standard of living has turned slightly downward.

To be sure, plans call for overcoming this trend during the present year and next year. But the fact remains that a large part of the population has not at present become richer, but rather the strata that has lower pay are experiencing ever more acute financial difficulties.

[Yevgenyev] But the reform as conceived does not aim at pinching anyone; it presupposes from the outset that equilibrium will be preserved: whatever we lose on the higher price of food we will be getting back in the form of compensation added to wages.

[Shatalin] That is impossible. It is impossible to distribute compensation in such a way that not a single social group is hurt. Everyone understands that it is immoral and intolerable to deprive those with low income of anything at all. But if we take a turn to their advantage, that would mean going back to the principles of leveling once again. A portion of the fund intended for people of moderate and high sufficiency will have to be taken. They include the scientific intelligentsia—the nation's brain, its motor. And then after all there are the pensioners, who even in the West must unfailingly get larger benefits when there is an official rise in prices. Beyond that, dependents have to be taken into account somehow. I will not even mention the problem of personal savings—they will inevitably be devalued. In short, as of today this is a practically unsolvable problem—to carry out that action without losses. Whatever professionals we call on and whatever supertechnique they set in motion.

[Yevgenyev] Let us suppose that it had all been solved. What then?

[Shatalin] A rise in prices would begin like an avalanche. Once they are raised in the state trade sector, they would be hiked up by the market, by cooperators, and by individuals. Then the turn would come for the shadow economy as well. In short, there would be a chain reaction.

You know that Prof W. Leontieff recently visited our country from the United States. He believes that the economic reform cannot be initiated by a rise in prices at all. This could result in a drop in the people's standard of living, which would undermine its faith in the new prices. As a matter of fact, you might recall that Deng Xiaoping, the godfather of the Chinese reform, repeatedly said the same thing.

[Yevgenyev] Nevertheless, in many socialist countries the introduction of the new economic mechanism has been accompanied by a rise of prices.

[Shatalin] But not a single one of them has been able to completely solve their problems. Hungary, for example, achieved fairly good results thanks to agricultural exports, but in industry it has stayed at almost the same point as it was 10 years back. In Poland, the result achieved after the sharp rise in prices and the payment of compensation was the opposite of what was expected: work incentives became still weaker.

[Yevgenyev] Well, fine, let us try to look at the other side of the coin. As we know, the food subsidy at present has reached almost 90 billion rubles.

[Shatalin] What of it? You know, this is a typical error. For some reason, many people see elimination of subsidies as virtually an economic revolution and they are ready to lay down their lives, so to speak, in order to "reestablish justice." A waste of time! It has not at all been the subsidy that has been holding back the development of the rural economy. A system of subsidies has long existed both in Europe and in America, but labor productivity in agriculture has been rising 4- to 5-fold faster there than in our country. Here is another fact that is worth bearing in mind. The Common Market countries are using a large part of their budget to finance the food program, to help the farmers. Shifts in the agricultural sector, the rise of its efficiency, do not depend on how rapidly we do away with subsidies, but on how rapidly we organize normal economic relations in agriculture.

[Yevgenyev] Then you are against any review of prices?

[Shatalin] Prices have to be reviewed. But only wholesale prices, especially the prices of raw materials and fuel. Retail prices on the other hand, I repeat once again, cannot be touched in any case.

[Yevgenyev] I do not see how this will look in practice. Suppose, for example, wood becomes more expensive, the prices of furniture will immediately jump up, won't they?

[Shatalin] Not necessarily at all. We are able to regulate prices. In this particular case, we can reduce transfers from profit and the turnover tax in those branches which acquire wood at the higher wholesale prices and sell products from that wood at retail prices. Adjustments within the economy will not affect the interests of the purchaser, he will not feel them.

[Yevgenyev] But the stability of retail prices is an indicator of an economy's health, is it not?

[Shatalin] No, clearly not. Its health is characterized above all by balance between supply and demand for consumer goods. And the gap between them that has formed in our country, according to the estimates of specialists, is colossal, amounting to between 65 and 80 billion rubles. And every second, I would emphasize, every second it is increasing. Our economy is sick. The

new economic mechanism has so far not taken shape. And it would be a naive and risky business under the present conditions to hold on to such a fine and sensitive little thread as retail prices.

[Yevgenyev] And what little threads do you propose holding on to?

[Shatalin] We might perhaps begin by revising our budget, finding sources of unnecessary expenditures. More accurately, those budget items where it would be possible to cut back and to scrape up the resources to organize the production of goods for the people. For example, we are allocating a disproportionately large volume of resources for defense, which, it seems to me, is not always justified. At the same time, we often operate in the old way, after the pattern that has been in place for decades, without looking at the price, and really without taking the price itself into account.

I am deliberately taking non-traditional spheres of expenditures, those which are, so to speak, beyond discussion. In general, we are well aware of the traditional ones.

I get the feeling that we have to some extent lulled ourselves to sleep with arguments about the new management system, about the new type of economic relations. Because we still do not seem to have the decisiveness required for the most radical and crucial steps. Reducing the number of sectoral ministries by one-third or by half, it is not a question of how much. They ought not to exist at all. So long as the ministries exist, they will be using a rake within their jurisdiction to smooth out and level those dependent upon them. The efficient distribution of resources and a mighty spurt in the domain of scientific-technical progress are unthinkable with them.

[Yevgenyev] Collectives operating under leases have still less need for them.

[Shatalin] The lessees themselves will decide whom they need. Now we have all come to feel it: the lease is the means of making a breakthrough, the thing that will move us sharply forward. But the indispensable prerequisites have to be created even for its development. Suppose that the lessee earns good money and goes to the store. Then what? There are no building materials for housing, there is a waiting list for sets of furniture, and the allotment of "Zhigulis" is all gone.... So why did he bother to earn the money? The extreme scarcity on our market—that is what will threaten to block the way to the leasing movement and to deprive it of an incentive for development. Even now there is nothing with which you can motivate those who have lost faith.

[Yevgenyev] What in your opinion should be undertaken?

[Shatalin] I think that we should get bold and take a loan in the West to buy the most up-to-date technology and to build plants to make automobiles and electronic household appliances. We could, of course, do it much more simply—use the loan entirely to buy the goods. For a time they would relieve the strain on the market, but soon the shortage would take us by the throat once again, new goods would be needed, and that would go on forever. It is the technology and the up-to-date plans that we should purchase.

[Yevgenyev] Poland has been acting in precisely that spirit—it took loan after loan until it choked and became bogged down in debt.

[Shatalin] If the radical reform goes ahead, if it does not end up just being words to us, we will be able to avoid what happened in Poland. Construction of the newest plant will impose higher requirements throughout the entire Soviet economy and will raise it to a qualitatively different level. The products produced must be competitive in the West, so that in 5 to 7 years, 10 years at the maximum, we will pay off our creditors, and one way of doing that will be with the output from the new production operations.

[Yevgenyev] Agreed. But the "creeping" rise of prices? Will it continue as before throughout all those years?

[Shatalin] So far no effective economic instruments have been found for combating it in our country. It is clear that the people must not pay for the state's promissory notes. The idea of Gavril Kharitonovich Popov, who proposed at the end of last year that retail price indices be recalculated and legislation be adopted to change the level of income of people with fixed incomes, including pensions and scholarships, seems fruitful to me personally. For my part, I would revise it to include the country's entire population, not omitting those whose wages depend on the growth of net output or adjusted net output.

[Yevgenyev] But the price index has to be determined with maximum precision for that purpose, but things with us are disconnected in this respect, as they say "the elderberry bush is in the garden, and uncle is in Kiev." Even today we began our interview with recounting. As far as I know, every serious economist has his own "bookkeeping." Everything is being recounted, all the way to the national income. No one believes Goskomstat.

This is the greatest drama in our economic science—the situation with statistics. One thing is distorted, given out of context, another thing is simply covered up. Gosplan has its own kitchen, but it will not let anyone else in. Information is furnished to the government whose reliability cannot be checked, since scientists do not know where it came from. It is shameful to say, but there are certain aspects of our own economy we are learning about from foreign sources.

[Yevgenyev] And you say: "Recalculate the price index...." Who is going to calculate it? That same Goskomstat?

[Shatalin] The field of statistics is also in need of restructuring, fresh young people need to be brought in who have not been corrupted by the stagnant period. The very attitude toward statistics has to be changed. The desire to look better than we are is pernicious for a society that has initiated revolutionary transformations. It is time that this is firmly adopted once and for all.

To go back to indexes, then at first it is perhaps worthwhile commissioning one of the scientific research institutes of the academy to calculate them, one that does not have "kinship" relations with Goskomstat. Having first, of course, supplied the scientists with all the necessary information.

Komin on Need for Comprehensive Wholesale Price Reform

18200064 Moscow *PLANOVYE KHOZYAYSTVO* in Russian No 10, Oct 88 (signed to press 20 Sep 88) pp 90-93

[Article by A. Komin, first deputy chairman of USSR Goskomtsen]

[Excerpts] The discussion over whether or not to carry out a price reform and over how it should be done has become widespread in our periodicals. Judging by the articles which have been published, a majority of the population is against a revision of retail prices that would take for granted a rise in food prices. And although it has been authoritatively declared that compensation will accompany this rise of prices so as not to detract from the standard of living, the problem of what so-and-so loses and what so-and-so gains does exist, as indeed does everyone's reluctance to be among the losers (even if the loss is insignificant). The natural conclusion to be drawn from this is that it is better to keep the status quo.

Some people have been proposing that prices and rate schedules not be revised, but that they be drawn up after the economy as a whole has been restored to health. The idea has even been expressed that "healthy" prices are formed by themselves if all the deficiencies are eliminated and order is achieved in the economy. But it is not possible to restore the economy to health without touching prices, since solving the problems which confront directly depends on, one might say, turns on prices. The view that the reform of prices and rate schedules was generated by restructuring itself and that if it had not been for restructuring, this area might have been avoided, is superficial and thoroughly unsound. The revision of prices and indeed of the entire economic mechanism was dictated by the very state of the economy, and it has been knocking on the door for a long time now. These measures ought to have been carried out back in the seventies. No thought can be given to

restoring finances to health, to putting order in wages, and to strengthening cost accounting (khozraschet) if present prices and rate schedules are preserved, since all these questions are interrelated and require a comprehensive approach.

There have been proposals to revise wholesale prices in industry, unit prices in construction, and purchase prices, while retail prices would be left unchanged. In other words, carry out another halfway price reform. Can we expect a large benefit from it? It will not be forthcoming, that is certain, since the system of retail prices completes the pyramid of pricing as a whole. What is more, under present conditions that kind of halfway solution would do harm to the economy: disproportions and distortions would be intensified, subsidies and shortages would be greater, as would the other evils typical of pricing and the financial mechanism as they are today. The only right way out is a comprehensive revision across the board of wholesale prices, purchase prices, and retail prices.

One of the most important tasks of a price revision is to bring prices closer to the socially necessary expenditures, that is, to put their structure on a scientific basis and to honor the law of value. The new prices, then, must fully reflect the expenditures of the state related to reproduction of labor resources and natural resources, which at present are being financed from the budget and other sources. A 2.4-fold increase in schedules of social insurance contributions is contemplated, which would eliminate the subsidy to the budget for state social insurance. What is more, it needs to be noted that reducing the rate schedule will lower the share of remuneration of live labor in production costs, and this will in turn have an adverse effect on technical progress. The artificially depressed value placed on labor is also compounded by the very level of wages, which has been adapted to subsidized food prices. All of this makes it disadvantageous to apply technology and to displace live labor.

Outlays for geological exploration and prospecting, reforestation, and environmental protection must be fully taken into account in prices. Rent payments will be widely applied in the petroleum, gas, and other branches of the extractive industry.

What changes are to be made in price levels from one branch of industry to the other?

It is necessary first of all to solve the cardinal problem of price relations between products of the fuel and energy branches and those of the manufacturing branches. The depressed state of prices of fuel, energy, and raw materials came about historically and is now manifestly out of line with the present trends toward intensive economic development. These prices were formed under the impact of false ideas about the inexhaustibility of natural resources and about their inexpensiveness.

As a matter of fact the economy has been giving signs for a long time that this situation was out of line. The most vivid example is the coal industry, which for decades has been operating at a loss even though coal prices have been raised repeatedly. The reason is that every time the size of the increase was determined not by taking into account the actual situation of the branch and the prospects for the dynamic behavior of costs, but the principle of "raise them as little as possible" so as not to cause a rise of prices in other branches of industry. As a result, the branch began to operate at a loss once again in 1967, a year after new prices went into effect, and in 1982, which was during the same year.

Of course, prices which do not cover costs because costs are extremely high are not precluded in economic practice. Every such case must be the object of thorough analysis and a special solution. As for the coal industry, there is no basis, in our view, for keeping that branch on the subsidy at this time. First, when we are mining more than 700 million tons of coal, and coal has a sizable share in the country's fuel resources, we cannot leave to one side what it costs society to mine it. Second, the level of coal prices cannot be seen as having been hiked up. Just like that of petroleum, gas, and electric power, it is between one-third and one-half the world price level. Moreover, artificially maintaining low coal prices results in low prices for petroleum and gas, which predetermines the level of prices of the entire fuel and energy and raw materials complex. As a consequence, society's costs in mining coal are reflected only partially in the system of prices. To a greater or lesser degree this is also true of the other sources of energy. This deficiency is becoming increasingly acute with the increase in the volume of extraction and scale of production. What is more, the inexpensiveness of fuel and raw materials does not act as an incentive for their economical use and for the application of resource-conserving technologies. For instance, in recent years there has been no noticeable reduction of the consumption of fuel and raw materials per unit of the national income; we are lagging considerably behind the advanced capitalist countries with respect to this indicator.

The apparent inexpensiveness of natural resources, along with their inefficient use, have resulted in large losses. To go no further than the mining and ore-dressing stages, as much as 25 percent of the underground reserves of ferrous and a number of nonferrous metals and 60 percent of potassium salt are being lost. About 100 million tons of coal are annually lost in mining. In all, the losses of mineral raw materials and the basic useful components they contain are estimated at a total of about 3 billion rubles per year. The state is also suffering appreciable losses from underutilization of accompanying minerals and components as well as from the waste of ore dressing in the mining industry.

Another problem that arises because of the depressed value placed on natural resources are the differences in production cost of electric power from hydro, thermal,

and nuclear power stations (0.15, 0.99, and 0.98 kopeck per kilowatt-hour, respectively), which has resulted from the absence of the estimated value of natural resources in the methodology adopted for computing the costs of electric power. That is why the projected construction cost of a GES is set artificially low (for example, in the European part of the USSR because of underestimation of the value of the considerable quantity of fertile land flooded), which in turn creates incorrect reference points used in capital investment policy. Situations of this kind have been occurring in practically all the branches of the economy exploiting natural resources.

Analysis of the level and dynamic behavior of costs in the coal, petroleum, gas, and other raw materials branches shows that if they were fully taken into account, the estimate of the natural factor and pursuit of the principle of self-financing would require raising price levels and bringing them closer to world levels. It has to be noted that the orientation toward world prices is not pursuing the goal of applying them artificially to our economy. On the contrary, our own domestic conditions are leading toward world price levels with objective necessity, since there are no miracles in an economy if it is built on objective laws.

If we look at the quantitative aspect of the intended change in levels of wholesale prices in industry, they would seem to repeat the revisions in 1967 and 1982. At that time, the most sizable rise of prices was also for fuel and raw materials (in smaller proportion than now, to be sure). But the quantitative aspect of the measures being taken now is different. For instance, in 1967 the level of fuel prices was determined relative to coal, whose prices rose 72 percent. The prices of gas and mazut were raised as a function of this, and the latter, of course, dictated the level of petroleum prices as well.¹ And indeed as a whole the impression was created that the entire level of prices in industry depended to a considerable degree on coal. Which also accounts for this "cautious" approach to this industry, which goes all the way to proposals for maintaining its subsidies.

A similar approach was taken in 1982, when coal prices were raised only 40 percent, and as a consequence they rose negligibly for gas and petroleum. For instance, the price of petroleum was set at 30 rubles per ton, although on the world market it had reached almost 150 rubles.

The change in wholesale prices of fuel will above all affect the level of rate schedules in the fuel and power industry (electric power and heat). Costs will be higher in other branches of heavy industry, which also will have an inevitable impact on the price level. Prices of products of the chemical industry would have to be raised accordingly, and this is extremely undesirable, since the level of prices in this branch is rather high as it is. In view of this situation, the decision was taken not to change the prices of plastics and structural materials, thereby making their use more economically efficient in the economy than the

traditional materials (metals). The enterprises will be reimbursed with subsidies from the state budget for releasing plastics and structural materials.

Plans call for raising prices of forest products by a large proportion. To be specific, since the timbering and lumbering industry is now operating on the verge of loss, prices of sawn lumber and products of the pulp and paper industry have to be raised over the next decade to guarantee stable profitability.

At the same time, the level of wholesale prices of the products of machinebuilding are mainly being preserved, which will create more economically sound price relations between them and the fuel and raw materials branches (to the advantage of the latter). The relatively depressed state of prices of fuel, energy, and raw materials will be eliminated, and this will have a favorable impact toward performance of measures to conserve them.

It will not be easy to maintain the level of wholesale prices of the products of machinebuilding. In the metals-intensive branches of the complex prices will have to be raised somewhat. But there is sizable room for lowering prices of the products of scientific-intensive branches (electronics, radio equipment, and instrumentmaking). So, it has been proposed that prices be lowered for electronic components, computer equipment, assemblies and units for radio electronic apparatus by an average of 15-20 percent (including at least 25 percent on integrated microcircuits) as well as on robots, numeric programming devices, and other science-intensive products that make for broad automation and electronization of the sectors of the economy.

When prices of products of machinebuilding are revised, more extensive use will be made of normative-parameter methods of evaluating the performance characteristics of machines and equipment, and their real efficiency, the need to stimulate production and to put highly efficient products and fundamentally new technology into production will be taken into account. Reduced profitability is to be assumed for outdated products in order to speed up their withdrawal from production. Profitability in machinebuilding will on the whole be somewhat below the standard level in the first years after the new wholesale prices take effect. Profitability has to be earned and brought up to the standard level, and later it would be exceeded thanks to the efficient operation of branches in the complex and withdrawal from production of outdated products which have low profitability.

Pulling up wholesale prices of fuel, raw materials, and supplies to a level close to the world level will create conditions for objective estimation of utilization of the production potential in our economy, and one thing this will be used for is to make comparisons with advanced foreign countries. With the old domestic prices of fuel and raw materials, which were depressed, we mainly were oriented in export policy to exporting them, since

selling the products of machinebuilding was less effective. The situation changes with the new prices. To be sure, we should note that the high prices of fuel and raw materials will make it more complicated for machinebuilding to achieve competitiveness. But the comparison of price and cost levels of the products of machinebuilding to world prices will be more objective.

New problems arise in connection with revision of wholesale prices on the products of light industry. In this case, apart from their linkage to costs, quality, and performance characteristics, the entire system of prices must ultimately be oriented toward guaranteeing a vigorous impact of the market for consumer goods on the operation of enterprises. A decisive step should be taken here and the system of two price lists—of wholesale prices and retail prices—should be given up. The existence of this system creates what amounts to a barrier between the market and production. That is why the demand of the public has a weak influence on the assortment and quality of the products produced. The transition has to be made to a unified system: wholesale prices must be determined from the level of retail prices, the rates of the turnover tax, trade discounts or premiums. This will create conditions favorable to achieving direct ties between industry and the trade sector. The transition to the new system cannot, of course, be made in a moment and all at once. A relatively lengthy period of time is required here. But a decisive step must be taken in that direction even now, in connection with the revision of wholesale prices.

There are also new problems in connection with structuring the prices of foodstuffs. It is well-known that all food prices are based not on real costs of production of agricultural raw materials and their processing, but on the so-called system of accounting (*raschetnyy*) prices, which are far lower than purchase prices. The difference between these prices is subsidized from the state budget. The result of all this is that in enterprises of the food industry immense gaps are created between actual payments for procurements and the value of raw materials that are actually entered as received and go through processing. These gaps result not only in various types of abuses, but they also have an adverse effect on application of processes for thorough use of the raw foodstuff, and they do not create conditions for thrifty treatment of by-products and their processing. In order to change the situation the production cost of foodstuffs should be calculated on the basis of real costs and wholesale prices should be structured on that basis. In this case, subsidies to industrial enterprises should be paid not in the stage of procurement, but in the final stage of production and sale of foodstuffs.

As is evident from what we have said, the revision of wholesale prices involves a substantial rise in their level. The price of fuel will rise twofold on the average, and overall prices for the products of heavy industry 43 percent. This is true not only in machinebuilding, light industry, and the food industry, but also in other sectors

and spheres of the national economy—in agriculture, construction, transportation, and the nonproduction sphere, where prices and rate schedules will also be restructured. As for the influence of these processes on retail prices, a decision has been made on goods and services for the public whereby new wholesale prices will exceed the present retail prices, and the amount of that difference will be reimbursed from the state budget.

The revision of wholesale prices in industry is to be carried out in an extremely short period of time. All enterprises and ministries have already been activated in that effort. The system of new wholesale prices in industry must create all the conditions necessary for the transition of the sector to full cost accounting and its normal functioning under the conditions of the new economic mechanism.

Footnote

1. At that time, the costs of extracting petroleum and gas were low, and if they had been the reference, i.e., if only the cost principle had been taken into account, then the prices of petroleum and gas would not have had to be raised to the extent they were.

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Analysis of 1960-1985 Data Shows Fixed Production Capital Excess

18200058a Moscow

MATERIALNO-TEKHNICHESKOYE

SNABZHENIYE in Russian No 8, Aug 88 (signed to press 27 Jul 88) pp 60-61

[Article by Yu. Gerasimov, head scientific associate of the Department of Accounting and Analysis of Economic Activity of MGU: "Certain Results of the Computer Experience Using a Model of Balanced Efficient Economic Development"]

[Text] "Although I just recently began to subscribe to the journal MATERIALNO-TEKHNICHESKOYE SNABZHENIYE, I already have a suggestion. I would like to see more statistical data on the pages of the journal in order to have the opportunity to compare and juxtapose the figures that reflect the country's economic development during one period or another."—T. Arkhipova, engineer-economist, OMTS (Leningrad)

At one time I managed to develop new macroeconomic models of balanced economic development in our country. Statistical data for 1960-1985 were used: the aggregate social product, fixed production capital, material expenditures, investments in fixed production capital in billions of 1984 rubles and prices, and labor expenditures in billions of man-hours. The programs were written in FORTRAN.

The calculations were conducted with a variant of economic development whereby the country was one region producing three kinds of products: the first category we shall call capital-forming (it is assumed that most of it goes for reimbursement and increasing fixed production capital); the second—intermediate (it is assumed that most of it goes for reimbursement and increasing material expenditures); and the third—that which is not used in the production sphere. All of these comprised the aggregate social product. We shall consider the net national income, by which we mean national income produced minus the products that go to increase fixed production capital and material expenditures.

Let us do an analysis of the efficiency of economic development from 1960-1985. To begin, let us determine the proportion between the fixed production capital and material expenditures that corresponds to efficient economic development, that is, the kind when with the given labor expenditures one selects fixed production capital and material expenditures that maximize the net national income. Fixed production capital and material expenditures that correspond to an efficient path of economic development shall be called efficient.

A comparison of the actual path of economic development with the efficient path of economic development during 1960-1985 is shown in the table. From it one can see that the net national income and the aggregate social product during the 26-year period that was analyzed were more efficient: in 1985 they amounted to 87 percent and 91 percent as compared to 80 percent and 72 percent respectively in 1960. During the same period of time, fixed production capital and material expenditures came closer to being efficient: in 1985 they were 108 percent and 87 percent efficient as compared to 52 percent and 64 percent in 1960.

The proportion equal to the ratio between efficient fixed production capital and efficient material expenditures shall be called efficient. Obviously, it is closer to one in the years in which the ratio between the numbers in column 5 and the numbers in column 6 of the table are closer to 1. In this sense the best proportion of fixed production capital and material expenditures was observed in 1971-1972 (79 to 78 and 81 to 80, respectively). There was a marked improvement in the proportion in 1982 as compared to 1981 (102 to 86 as compared with 101 to 81).

The period from 1960 through 1972 was basically favorable for the development of the domestic economy: fixed production capital and material expenditures approached the efficient amount (they were 81 percent and 80 percent of the efficient amounts in 1972 as compared to 52 percent and 64 percent in 1960). But one can note that in 1960-1964 the net national income did not approach the efficient mark and in 1970-1972 investments in fixed production capital were high.

The period from 1973 through 1981 was especially unfavorable for the development of the domestic economy: the proportions of fixed production capital and material expenditures deteriorated as compared to the efficient proportions, which, in spite of the achievement of an efficient level for fixed production capital, led to a reduction of the aggregate social product to 87 percent of the efficient amount by 1981 as compared to 90 percent in 1973. By the end of the 1970's there was also a drop in the net national income as compared to the efficient amount. This period was typified by an annual increase of investments in fixed production capital by an average of 25 percent.

Years	Investments in Fixed Production Capital	As Percent of Efficient Amounts		Fixed Production Capital	Material Expenditures	"Inadequate" or "Surplus" Fixed Production Capital, Billions of Rubles
		3	4			
1960	86	72	80	52	64	-57
1961	89	73	82	54	64	-47
1962	91	73	78	56	64	-40
1963	93	74	77	58	65	-40
1964	99	76	80	61	68	-41
1965	102	78	80	64	69	-31
1966	102	81	85	67	72	-33
1967	108	83	90	69	74	-30
1968	112	83	84	71	73	-13
1969	111	86	89	74	76	-16
1970	118	87	91	76	78	-12
1971	121	86	83	79	78	7
1972	125	89	89	81	80	10
1973	124	90	94	84	81	23
1974	126	89	80	87	80	58
1975	130	91	87	90	86	40
1976	125	90	87	92	84	79

Years	Investments in Fixed Production Capital	Aggregate Social Product	Net National Income	Fixed Production Capital	Material Expenditures	"Inadequate" or "Surplus" Fixed Production Capital, Billions of Rubles
As Percent of Efficient Amounts						
1	2	3	4	5	6	7
1977	124	90	90	93	84	98
1978	128	90	88	96	83	145
1979	125	89	88	97	83	167
1980	130	88	86	99	82	213
1981	124	87	74	101	81	260
1982	127	91	83	102	86	220
1983	127	92	89	104	88	228
1984	130	92	89	106	87	277
1985	134	91	87	108	87	333

During the period from 1982 through 1984 there was a certain improvement in the development of the domestic economy: the proportion between fixed production capital and material expenditures came somewhat closer to being efficient; the aggregate social product amounted to more than 91 percent of the efficient amount; and the ratio between net national income and the efficient amount stabilized. But during these years investments were also too high which, in particular, led to a deterioration of the investigated indicators in 1985.

Let us make the following calculations: we multiply the value (in 1984 prices) of 1 percent (in each year of the period from 1960 through 1985) of efficient fixed production capital by the difference between the numbers in columns 5 and 6 of the table respectively. If we receive a "minus" sign the evaluation is "inadequate" fixed production capital and if we receive a "plus" sign we have "surplus" fixed production capital in the corresponding year of the period from 1960 through 1985. These results are given in column 7 of the table and clearly show that from 1960 through 1970 there was not enough fixed production capital while from 1971 through 1985 fixed production capital began to be not fully covered by material expenditures.

Thus the analysis conducted in this work shows that since 1970 our investment policy has been unsuccessful and since 1973 the structural policy has been unsuccessful as well. In order to increase the efficiency of economic development it is necessary to increase the cycle of processing of implements of labor and to reduce it as a result of investments and writing off the supplies of fixed production capital. In 1985 fixed production capital valued at 123 billion rubles was quite unnecessary—this is the figure by which the real fixed production capital exceeded the efficient amount that was "achieved" in 1981-1985.

Even without making special calculations, from the table we have given one can conclude that the condition of economic development in 1970 was such that in the 1980's it was possible to enter on an efficient path of economic development.

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Kazakh Roundtable on Banking Survey, Need for More Reforms

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[Article composed from minutes and recommendations of a meeting of the "Economist" Business Club: "Barriers in the Way of Specialization of the Banks"; first three paragraphs are NARODNOYE KHOZYAYSTVO KAZAKHSTANA introduction]

[Text] The article by B. Irishev, department head in the Alma-Ata Institute of the Economy [AINKh], entitled "Specialization or General-Purpose Orientation?" published in the April issue of the journal NARODNOYE KHOZYAYSTVO KAZAKHSTANA, has aroused interested responses from readers disturbed by the state of affairs at the very outset of the reform of the banking system. But what if bank personnel are offered an opportunity to join representatives of their customers and scientists in discussing the problems that have arisen and in outlining ways of resolving them?

The organizing committee created on initiative of the republic's council of the banks, the AINKh, and the editors of the journal, invited more than 160 persons to exchange opinions. A broad survey of bank personnel and executives in the economy was conducted with the questionnaire entitled "The Banking and Credit System: The View From Inside." Responses were received from 285 bank personnel and representatives of their customers.

The meeting of the "Economist" Business Club in the Alma-Ata Center for Popular Political Education was opened by Prof Viktor Sergeyevich Naydenov, chairman of the organizing committee, rector of the AINKh, and doctor of economic sciences.

"The problems of making the banking system more effective," he said, "are disturbing many people, which is no accident, since the activity of the banks has an essential impact on the country's economic life. The first of the problems lies in the system's organizational structure. Opinions concerning its structure are contradictory. To be specific, there are even those who favor creation of a single commercial bank."

"In the present situation, the bank must unconditionally engage more broadly in commercial activity, and in so doing take into account the specific nature of production groupings in various branches. But which road is to be taken: further expansion of specialization or, on the contrary, more intensive integration?

"The second group of problems has to do with guaranteeing efficient use of the nation's lending potential. What should relations among different banks be in this connection?

"The practice of credit financing is taking on just as great importance. Under the conditions of the present time is it justified to have an overregulated procedure governing the granting of loans, collection of interest, and repayment terms? Is it the right thing to do to rigidly regulate sources from which credit is to be repaid and from which the interest is to be paid on it? Possibly the time has come when many restrictions might be removed and the motivation of industrial enterprises to take credit increased thereby?

"On the other hand, credit has essentially become one of the forms of financing, since our financing is in disarray. Enterprise finance is like a bucket with a hole in it: it could end up empty if the inflow of credit is shut off. Tightening conditions for the granting of credits means placing our production in a more problematical financial position. That is why all aspects of actual reality have to be points of departure in evaluating this problem.

"If we are to work out specific recommendations, we need a free and open exchange of opinions, which will be summarized and presented to the government of the republic, accompanied, of course, by specific proposals."

Then the discussion leaders took over: Yelizaveta Petrovna Volozhina, referent of the KaSSR Council of Ministers, and Berlin Kenzhetayevich Irishev, department head of AINKh.

Discussion leader: In preparing for this meeting with you, comrades, we departed from the usual practice of designating the speakers in advance. We are counting on all the participants to be energetic and businesslike. As folk wisdom has it: "Unless different opinions are expressed, the best of them cannot be chosen." We invite Beisengali Shamgaliyevich Tadzhilyakov, first deputy chairman of the board of the republic bank of USSR Gosbank, to furnish background information on the new structure of the banks.

B. Tadzhilyakov: The reorganization of the banks began last year. Under the new structure, local bank institutions would define their own staffs. But in the first months many of them proved not to be ready enough to operate because a number of organizational and technical matters had not been dealt with. This resulted in tardy accounts with economic entities.

Banks operating parallel to one another have been set up in a number of cities and rayons. The issue of a full line of services to customers has not been worked out everywhere. There have been some odd things, such as when an official economic agency became the client of a bank...in another rayon. Other difficulties, also unwarranted, have arisen.

The council of republic banks has been attentive to all the shortcomings and has been taking steps to correct them. First of all, the network of local bank institutions had to be understood, and the opinions of party and soviet authorities were taken into account. Some 30 branches were closed in 13 oblasts. We are monitoring construction of cashier's offices and vaults.

Today, there are 352 banking institutions operating in the republic: 20 of them belong to Gosbank, 30 to Zhilotsbank, 63 to Promstroybank, and 239 to USSR Agroprombank.

Question from the audience: How many administrative personnel do the specialized banks have?

B. Tadzhilyakov: The council of banks does not have those figures.

Question from the audience: How are circulating funds coordinated in the specialized banks?

B. Tadzhilyakov: This is the most complicated problem we have today. The plan was approved only in the 2d quarter. All the aspects of settlement service to economic entities and the circulation of money were taken into account. We notify all the republic banks of the assignments. In the oblasts, they designate the head institutions of the banks. But difficulties immediately arose, especially in fulfilling the cash plan. Collected from the four specialized banks, they are not always reliable.

Comment from the audience: Before reorganization of the banking system was completed, in Karaganda Oblast personnel, including the manager of Gosbank, did not know what specifically to do. This indefiniteness did harm to the cause of restructuring....

Question from the audience: Do you personally feel that Gosbank is now the head institution and is actually coordinating the work of the specialized banks?

B. Tadzhilyakov: The opportunities for coordinating the work of the specialized banks are still not being fully used by any means.

Questions from the audience: By virtue of what sources will Gosbank exist after the transition is made to full cost accounting (*khozyaystvennyy raschet*)?

What is the job of the auditing staff of the specialized banks and of the republic gosbank?

Why was the draft version of the bank reform not discussed?

B. Tadzhlyakov: The council of banks examined the draft version of the transition to cost accounting and self-financing and took all proposals into account. The work is being done separately for the specialized banks.

The auditing staff of the banks operates in keeping with plans that have been approved. As for discussion of the draft version of the reform, pardon me, but I might put that question to each of those present. What is past is past....

Discussion leader: Since the answers to some questions have been incomplete, we would like representatives of the specialized banks to furnish clarification.

S. Sazanov, deputy chairman of the board of the republic bank of USSR Promstroybank: The number of our personnel has increased by 1,200, mainly because branches in cities and rayons have been transferred to us. The staff size of the republic bank has been reduced by 20 persons.

V. Morzovykh, deputy chairman of the board of the republic bank of USSR Zhilsoybank: The total figure has unquestionably increased, which has to do with the division into specialized banks, in each of which, aside from the economists, there must be a general operating staff (khozyaystvennyy apparat). We are trying to get by with a minimum number of personnel, and to that end we specifically have consolidated the economic staff departments of city and oblast administrations.

Comment from the audience: But it has to be acknowledged that in a number of cases the staff of the oblast administrations has been expanded at the cost of reducing the number of personnel of the branches....

V. Nazarov, deputy chairman of the board of the republic bank of USSR Gosbank: I am convinced that there has been no increase in the size of the headquarter staff of the republic banks. But there has been an appreciable growth at the oblast level. I will take Tselinograd Oblast as an example. Whereas before reorganization the staff of the economic planning department of the former oblast office of Gosbank, not counting Stroybank, was five persons, there are now 13 economists working in the analogous departments of the three specialized banks. The number of personnel in the department for circulation of money, the main bookkeeping office, and cashiers has also more than doubled. The staff size of the other departments has increased as well. There are correspondingly twice as many managers of oblast bank administrations as there were.

M. Kuatova, deputy chairman of the board of the republic bank of USSR Agroprombank: There have been no changes in the number of personnel in our branches.

Survey Responses

Question: What is your assessment of the bank structure?

"Improved," confirmed 13 persons, or 4.6 percent of the 285 responses.

"Worse," said 263, or 92.3 percent.

The following were among the reasons given:

- the increased load on the bank personnel of branches because of more reporting—21.3 percent;
- the increase in the number of superior levels—18.6 percent;
- credit and settlement services to customers and work in the bookkeeping department have become more complicated—13.7 percent;
- the work of the banks is not coordinated and is duplicated—9.9 percent;
- personnel were not prepared for the changes in the banking system—8.7 percent;
- distortion of the nature of the specialized banks, and the general-purpose orientation of their branches—7.6 percent;
- the swollen growth of the administrative staff offset by staff reductions in the branches—7.2 percent.

V. Yetish, chief of the Alma-Ata Oblast Administration of USSR Gosbank: In reply to the question of whether it was not a mistake to restructure the banking system, I say: the idea of the reorganization had been relevant for a long time. With the circulation of money and credit the banks are expected to support the economic reform in the country's economy and promote its effective development. But it is no secret that in recent years bank credit has not been having the impact it should have had on the economic condition of economic entities and in certain cases it has been used to cover financial liberties or even outright mismanagement. The basic principles of credit—that it be repaid within a specific period of time—have been distorted as a result. And this in turn has resulted in an undesirable phenomenon: the growth rates of credit investments have begun to exceed the growth of production.

But so far the assumed result of restructuring is still not noticeable. Indeed, we should hardly have expected any other result, since the design for it was not fully worked out nor was it the topic of broad discussion. No one gave a thought to consulting with scientists, nor with the specialists of the banking system. That is why practically nothing has changed at the local level except that there is a different sign on the institution and different subordination. Another adverse fact has emerged: the size of the administrative staff has grown, while the lower level has remained the same or even shrunk.

In our oblast, for example, there are five more supervisory personnel in the four administrations than there were before restructuring. The administrative apparatus

as a whole has grown by 80 persons. Everywhere the number of administrators is shrinking in ministries and departments, but in the banks it is increasing for some reason. The oblast administration of Zhilsotsbank consists of only three branches and an operations administration, but the same departments and staff services have been created as in the other special banks, which have been experiencing a considerably larger load.

Indeed, at the republic level that same Zhilsotsbank has no subordinate institutions whatsoever in 13 oblasts, while Promstroybank has none in only 4, and it also has very few clients receiving credit. But in every oblast oblast administrations have been created for all specialized banks, and, of course, they have a full complement of personnel. Who was guided by what arguments in doing this we do not know.

But at the lower level the good idea of sectoral specialization has not been carried out at all. The branches are compelled to serve economic authorities of all the specialized banks, which for all practical purposes is the way it was before the reorganization.

Specialization "at the top" and the absence of it at the "bottom" has complicated still more the effort to democratize the system of banks. Difficulties have arisen in maneuvering credit potential and in management of the circulation of money. Instructions duplicate one another several times over and there are more assignments and a larger turnover of documents.

Elements of localism have emerged in the situation that has come about: the branches pay paramount attention to "their own" customers, and only thereafter to others who belong to other specialized banks, lacking motivation based on attainment of final qualitative indicators for the city or oblast as a whole. Such cases have also been observed in our oblast, when "foreign" customers account for a large portion of nonpayments of loans from a particular specialized bank. But here the bank institutions do not bear responsibility for such nonpayments.

Even now, in the period of preparation for the transition to full cost accounting, it is very important to fight in every way for profit—the principal source for the banks' further activity and development. Earning it is unthinkable without proper organization of credit relations with economic entities, which should be furthered by awarding bank institutions the right of having a loan fund.

Axiom: The enterprise and the bank must be pulling in the same direction, and for that reason the bank is entitled to count on a share of profit when high economic results are attained.

The planned and effective functioning of the banks is unthinkable unless the load on the economist is determined in a reasonable way. At present, it frequently is

twice or three times greater than what is optimally necessary. He has no time to engage in a thoughtful analysis of affairs and to seek ways of improving operation.

Nor have the matters of relations of the specialized banks been smoothed out. USSR Gosbank is supposed to coordinate and monitor their activity, but it does not possess the appropriate rights with respect to the specialized banks. Those rights have not been defined either in normative documents or in the bylaws of USSR Gosbank, which, however, have not yet been approved.

You say that we have the council of banks. But in that democratic body, the way it has been proposed, all members would have equal rights. Many urgent issues are resolved by group decision, but this is still far from the main goal of close interaction between the bank and the economic authority. The structure of the banks is imperfect and needs substantial additional work.

Question from the audience: In your opinion, does the council of banks that has been created have an effect on operating efficiency, and if so, to what extent?

V. Yutish: Given the present structure of the new banking system, which, to be frank, is not altogether successful, the council is necessary. It is through it that many correct decisions can be made in spite of the present manifestations of localism. As for efficiency, too little time has gone by so far to make a comparison and draw an accurate conclusion.

Question from the audience: What do you think about having tellers' windows in all banks?

V. Yutish: I think that tellers' windows are necessary in all branches in the present system. That means that they need their own safes and funds so that the institutions of banks would face comparatively equal conditions.

Discussion leader: In addition to the conclusions of bank personnel, it is also important to know the opinions of client representatives. Who will begin?

The Unequal Partnership Is a Serious Impediment

M. Utin, Glavmaistastroy deputy chief for economic affairs: The specialized banks are expected to serve particular sectors, including their capital construction. But let us look at what is actually happening. For example, a trust has ties with Promstroybank, but its construction and installation administrations have ties with Agroprombank and Zhilsotsbank. Each of them means a great deal of paperwork and additional inconveniences.

We are now preparing for the transition to full cost accounting and self-financing. We need to learn to count money, and in this important matter we would like to see the bank as a reliable partner and good helper. It has

been given the right not only to monitor the use of funds, but also to shape plans. But it is not involved in that, and it has no motivation to provide help in finding financial backing for the full extent of the plan. When planning authorities include in the annual program projects for which plans and estimates have not been furnished, we object, but the bank acts as though it were an outside observer, and it does not become involved in our troubles. Some partnership....

We want to see the bank as a guarantor that the financial backing will be furnished. We would like it to take full responsibility for the client's financial activity. That is not always happening in practice. For instance, we undertake a project and we see that the client does not have the money, but is deep in debt. Where is the way out? The bank suggests that we take a loan at a high rate of interest, which is disadvantageous to us.

The opinion has been expressed that in the transition to cost accounting the bank is entitled to count on the organization's profit. But that is possible under one condition: if the bank really figures as a businesslike partner. What kind of profit sharing can we talk about if the bank limits itself to merely performing monitoring functions? What is more, it collects a high rate of interest on credit, it imposes penalties for failure to meet deadlines for activation of projects, even though the client is more to blame for that than the contractor.

Why, you ask, is a heap of paper prepared annually for a project which is under construction for several years? Once the financing has been established, then let it be continuous until construction is completed.

And then there are incidents like these. The bank receives the most recent instruction, and it directly affects the economic activity of their clients, but they do not tell you anything about it. For instance, introduction of settlement for stages of construction, given the present imperfect supply of materials and equipment, is very harmful to the cause, and should be abolished.

Every year we construct projects not on the plan amounting to 1 million rubles. We are forced to do this by various higher-level organizations, and the bank sees that this is unlawful, but it takes a waiting position. But as soon as we start construction, then they are "after us" and invoke penalties.

Discussion leader: It would be interesting to hear the opinion of a representative of an enterprise on how the shortcomings can be corrected in the present situation and economic ties with the bank strengthened.

V. Nazarov, chief bookkeeper of the plant "Kazgeofizpribor": We are all interested in speeding up the turnover of resources, but in our case it has slowed down by almost 2 weeks compared to last year. Nor is this

surprising: the bank was in a state of confusion during the 1st quarter. You send in your documents promptly, but they sit around: bank personnel do not lay hands on them.

In 18 years of work at the plant, there has been no case when we failed to fulfill the plan. But this year we are constantly falling behind, and it is solely the bank's fault, because we are losing a great deal of time filling out documents. There is no evidence of the motivation of bank personnel to speed up the process. Why have they made Wednesday a day off in the bank branch? There is not enough time even as it is, and now we are completely out of breath.

It is surprising, but the calculating machines are not operating faultlessly, payments to the clearing account are posted on the 3d day, no one explains the reasons, but the payment of our wages has been moved to a later date.

There has also been a great deal of trouble with delivery of money to the plant. Look at what happens in Gosbank on the days when money is issued: You see all kinds of equipment there—from immense buses to truck cranes. Scandalous inefficiency!

Wouldn't it be possible for someone to show initiative and organize central delivery of money to enterprises according to a schedule? No one is going to reimburse the state for the costs of this good deed. A few special vehicles would have to be assigned, personnel trained, and deliveries would be made on the scheduled days—the costs would be lower, and the money would be better protected.

At present, we are not feeling the advantages of creation of the specialized banks. It would be better to have a single bank and set up departments for the sectors within Gosbank.

Survey Responses

How do you see the optimum organizational structure of the banking system?

- "A single statewide bank"—122 respondents, or 42.8 percent.
- "The previous one: Gosbank and Stroybank"—83 persons, 29 percent.
- "The new one: Gosbank with sector banks"—34 persons, 11.9 percent.
- "Gosbank and regional banks"—25 persons, or 8.8 percent.

A. Shokarev, chief of the finance department of the Alma-Ata Railroad Division: Much has been done in our collective to restore a sound financial condition, we now have our own money, and quite a bit of it. But since the

beginning of this year, which coincides with the period of reorganization of the banks, our finances, so to speak, have gotten out of hand. In a flash, we lost the proceeds we had been receiving from clients for shipment of goods. Our receivables quadrupled. Funds for wages and other purposes transferred to our enterprises began to get lost. Just imagine: millions of rubles somewhere en route for months.... As a consequence, we have not been meeting deadlines for issuing wages to workers in violation of collective agreements. Nor have such cases been isolated incidents. Above all because there is a great deal of confusion and the division between "our own" and "someone else's" clients. In Zhilotsbank and Agroprombank, we railroaders come last with all the attendant inconveniences. That is why by comparison with the new procedures, the old procedures were more convenient for us, and at present we only dream about a businesslike partnership with the banks.

Survey Responses

Do you have an idea about the forms for businesslike partnership between the banks and clients?

—"Yes"—120 persons, or 42.1 percent.

—"No"—147 persons, 51.6 percent.

—No response—18 persons.

What in your opinion are the best ways of implementing businesslike partnerships?

—"For the bank branch to share in the client's profit"—90 persons, or 31.6 percent.

—"Placing economic liability on the bank for the effective operation of the client"—52 persons, 18.2 percent.

—"Making the wages of the bank's economists depends on the client's operating efficiency"—89 persons, or 31.2 percent.

The Pyramid of the Banks on the Shoulders...of the Bank Branches

A. Mursalimova, manager of the Alma-Ata Central Branch of USSR Agroprombank: One good thing is that in the process of restructuring the bank system the old instructions have been abolished. The system of credit financing has been simplified. But at the same time, the previous well-ordered system of state banks should have been preserved. Perhaps the sole advantage of the new structure is the client's opportunity to obtain services in a single bank: both financing through appropriation and also credit financing. This is very convenient, and the main thing is that it strengthens the role of the bank in prompt presentation of contributions and it eliminates diversion of resources from economic employment.

It is a pity that the specialization has not taken place at the local level. At the same time, there has been an increased flow of directives and paper to the branch banks from all the specialized banks and Gosbank. Every one containing its own tables and recommendations. The report on financing capital investments, which we previously prepared on a simplified monthly form, is now prepared in the annual format.

All of this additional load has been placed on the shoulders of the previous staff. After all, all of this work has to be done by hand.

Now about interest rates. We feel there is no need to grant every branch bank the right to set them. Interest rates must be uniform, and they should be differentiated up or down as a function of performance of the credit contract.

The bank reform has brought to a head the need to restructure the system of personnel training, above all in the Alma-Ata Institute of the National Economy [AJNKh]. Our branch is regarded as one used for training, and established relations with the institute are justified. They should be extended to other specialized banks as well.

N. Zhidovich, manager of the Kapchagay Branch of Promstroybank: I represent that lower level where the restructuring of the banking system is vividly reflected. We knew nothing about the design of the reform, but awaited it with hope that the settlement and credit mechanism would be effectively simplified, that there would be less bureaucracy, that we at the local level would become effective partners for our clients, and that we would have a benefit from our joint effort.

But what in fact has happened? Specialization has reached only the middle level—the oblast level. The same general-purpose banks have remained below that. Moreover, even the specialization which previously existed has been destroyed. Previously, departments in the bank's branch office worked with the sectors. Now that we have four specialized banks, we are forced to bring all the clients together in the same hand so that we might be accountable to them. Which means that the economist is no longer specialized: he serves industry, agriculture, communications, transportation, construction, the trade sector, and then the circulation of money in addition to that.

We are not getting new instructions and supplements to them worked out, we are not managing to respond to the flow of bureaucratic paper. An absurd situation has come about since clients were divided up on the geographic principle. Our branch belongs to Promstroybank, but that is true of only one-fifth of "our own" clients. Some 70 percent go to Zhilotsbank, and the other economic entities to Agroprombank.

Now about the limits. As of 1 July, Agroprombank and Zhilotsbank had 1.5 million rubles of credit resources with us that were uncommitted. At the same time, Promstroybank had an acute shortage for those resources, but we cannot use the funds of the specialized banks. Or this case: A client needs an emergency loan. While we are requesting and waiting for permission, the loan ceases to be necessary.

On the circulation of money. As a matter of fact, when the specialized banks were created, this question was in the background. We simply did not have time for the circulation of money, even if we wanted to be concerned with it.

As a branch, we are responsible for the cash plan. Since it remains our principal indicator, correspondingly greater attention ought to be paid to it. Instead we are concerned with what is being written, with writing explanations in response to requests "from above." There is, of course, no benefit from this "activity," the benefit is zero.

Survey Responses

Has it been warranted to concentrate in a single bank institution credit and settlement service related to the principal activity and related to capital investments, in which it is handled by a single economist?

- “The character of the work has not changed”—35 persons, or 12.3 percent.
- “The work has become easier and more efficient”—7 persons, or 2.5 percent.
- “The work has become more strenuous, but more efficient”—28 persons, or 9.8 percent.
- “The work has become more strenuous, but its results are still the same”—178 persons, or 62.5 percent.

M. Mirayeva, deputy manager of the Moskovskiy Branch of Promstroybank in Alma-Ata: Opinions have been expressed here to the effect that specialization of the banks is not necessary. These judgments seem to me incorrect. Regardless of what it is called, there has to be a single central authority over the lower levels, the direct operatives. If our interest is not to be divided into four parts, the centers for finance by appropriation and credit financing, for the issue of notes, and for cash transactions must be in the same hands.

When we speak about a businesslike partnership between the banks and enterprises, we also need to look at the pay system for bank personnel. It does not offer an incentive for improvement of qualifications. Experienced economists have been leaving us.

It seems to us that many shortcomings can be corrected not by reorganizing the banks, but by revising normative documents. It seems that they have been in a hurry to break up a system that had taken shape over a period of 70 years, but they did not think up an effective new one.

We have been experiencing a stressful load since the very beginning of this year. Nor have the difficulties been eradicated even now. Just imagine: Promstroybank was organized from Stroybank and is supposed to serve enterprises of the leading sectors of the economy. But the personnel are still the same as before, they have a low level of competence and if they know anything even about an enterprise balance sheet it is an accident. Some personnel have gotten lost in the unfamiliar conditions, others have been trying to develop the habits, but this is not anything simple, it takes time. They are having a hard time.

The bookkeeping staff is especially hard hit. The audit is done by Promstroybank, but there is no confidence that it is as good as it should be. And the inspections are done by the school itself. It would be more worthwhile if they were done by staff members of the oblast administration of Gosbank, who have better professional training and can pass on their know-how.

The opinion has hardened on the basis of results of work in the 1st half of the year that the hasty reorganization of the banking system has done more harm than good, especially in the period of the transition of enterprises to the new economic conditions. We make poor business partners when accounts are lost, and clients do not know what their affairs are for months.

Something has to be done to set up a single bank and a single settlement center.

Discussion leader: The speakers have mostly restricted themselves to observation of case histories. Attention also needs to be concentrated on ways of solving the problems that have arisen, and specific recommendations need to be made.

R. Akpeisova, chief of the Alma-Ata City Operations Administration of the USSR Zhilotsbank: While I support those who have already spoken, I would emphasize that the result of restructuring is that the entire banking pyramid has been pressing down on the lowest structural subdivision. In our branch, we have literally been suffering because operation is not organized the way it should be. At this point, our staff is more concerned with investment functions than credit financing. This is new work for us, there is no experience, and that is why we do not know how correctly we are performing our tasks. Even now it is evident to everyone that specialization of the banks has gone no further than the oblast level, and the branches are forced to be versatile—to serve all comers and to report to four “bosses.” Since they have

available credit resources, but do not have the power to maneuver them, they are constantly asking for permission from the respective specialized banks.

If the client is to be served by one economist and by one bookkeeper, we need experienced personnel who are versatile. We do not have very many such people. Thus a good idea is being left undone.

We have to recognize that it was unjustified, when the clients were distributed, not to follow to the end such principles as specialization and geographic allocation. We are accordingly experiencing difficulties in even compiling reports on fulfillment of the cash plan: we have to deal with practically all the city branches of banks, and promptness is lost. The attention of economists is involuntarily taken away from analytical and monitoring work and applied to routine statistics.

Some people, to be sure, are objecting that they can deal with clients exclusively on a geographic basis, and this is incidentally what the oblast gosbank is insisting on. But, one wonders, what is the point then of having four specialized banks in Sovetskiy Rayon, two of which are banks that conduct cash transactions, while the others are also building facilities for that purpose?

The attempts at illogical redistribution of clients are perplexing, in particular when enterprises in the trade sector are transferred from us to Promstroybank, even though the experience of other republics shows that it is wiser to attach them to Zhilsotsbank.

The reorganization of the banks has increased the cost of maintaining the administrative apparatus, which runs against the party line. At the same time, ordinary economists are still being paid extremely modest wages.

It follows from all of this that a single bank for the entire country (republic, oblast) would have been more worthwhile. This would make it possible to conduct a single policy in credit financing and financing through appropriations, and specialization by sector would have been done at the level of banking institutions, but without departure from the unfailing condition of establishing the cash plan not for the rayon, but for the bank branch, which would make it possible to eradicate the administrative-command methods in management.

Survey Responses

The reform of credit and banking presupposes a resolute transition from administrative-command methods of management to economic methods. What changes have taken place in that connection in your bank?

—"Economic methods are predominant, vertical rule-making has decreased"—2 persons, or 0.7 percent.

—"There have been no substantial changes in the methods of management"—64 persons, 22.5 percent.

—"The vertical rule-making system has become more rigid and complicated (an increase in the number of management authorities, increased paperwork)"—212 persons, or 74.4 percent.

Discussion leader: It is beyond all doubt that qualified people who are anxious about the cause decide the success of the restructuring of the banking system. But does it not seem that in our concern with predominantly organizational matters we are paying less attention to the ideology of the process of restructuring? And it presupposes that we shatter our bureaucratic approaches to solving everyday tasks and an ability to penetrate the problems of partner-enterprises, an ability to work creatively, selflessly, with maximum results?

P. Skvirskiy, chief of the monitoring and auditing administration of the republic bank of USSR Promstroybank: The relations of bank institutions with enterprises and organizations are far from perfection. But in fact they have not been affected by the Regulation on the Banks.

In our opinion, it is also abnormal for a specialized bank to turn over its credit resources to every branch. Departmentalism is cropping up here once again. Today we count on those resources on a geographic basis. So why not allocate to the higher-level head bank the credit resources for all the customers regardless of which of all the specialized banks they have been assigned to?

A sensible approach should also be taken to this question. Recently, I had occasion to visit a branch bank in Chimkent. It has two clients: the first has 5 million rubles in debt, and the other 12 million rubles of uncommitted money. The latter proposes: "Comrade bankers, take 6 million from us at 3 percent per annum. Let us conclude a credit contract, and we will take a certain amount of work. This is advantageous after all for everyone...."

Discussion leader: It is evidently a question of organizing a money market? This is not a new idea. At the beginning of the year, the need to open a money market in the new situation and to organize interbank refinancing was discussed at a scientific conference held in the Alma-Ata Institute of the National Economy. This important issue has recently been covered in the newspaper SOVETSKAYA ROSSIYA....

P. Skvirskiy: The idea is not as a matter of fact a new one, but the situation is not changing. We say that everything is ours, that we need to show initiative and enterprise, but in actuality our hands and feet are tied. We need to make a speedy transition to independence in our operation, and cost accounting would help there.

Discussion leader: And economic methods of regulating relations among the banks instead of the administrative methods that now exist.

P. Skvirskiy: Exactly so—economic methods!

There have also been reproaches about the work of the computer center, which is expected to prepare the relevant data for every bank institution. In our case, that is not being done.

L. Pavlinin, manager of the Zhelezinskly Branch of USSR Agroprombank, Pavlodar Oblast: Unfortunately, there still have been no appreciable changes for the better at the lower level. There has only been a change in the name and a change in the bank's clientele. There is more duplication now, more running around, more clients confused in searching for their account numbers. The load is greater, personnel are quitting, and we can neither provide them with a good salary nor housing to hold on to them.

We feel that the reorganization of the banks was done hastily. We need to go back to the previous system.

Question from the audience: It is not clear what you have in mind.

L. Pavlinin: To leave everything the way it was and the Savings Bank as well.

A. Tolkinbayev, manager of the Kaskelen Branch of USSR Agroprombank, Alma-Ata Oblast: In our collective, when we experienced difficulties in having more than one master, everyone was also in favor of a single bank, more democratic principles, and real independence in operation.

Survey Responses

What in your view is the most effective form for regulating the activity of bank institutions?

- "Direct binding instructions from higher-level banks on the orientation and placement of loans and other settlement and credit operations"—9 persons, or 3.2 percent.
- "Full independence of the bank branch in choosing the directions and size of credit investments"—214, or 75.1 percent.
- "Combination of the directive and independent forms of regulation"—50 persons, or 17.5 percent.

Discussion leader: The computer center was supposed to help organize efficient operation of the banks.

N. Isin, chief of the computer center of the republic bank of USSR Gosbank: Considerable work has been done to set up a unified computer network. But departmental separateness is standing in the way of its efficient use. In February, plans were outlined to organize the efficient operation of the center in serving all the banks, and an order was issued. But unfortunately it has been hanging in the air. Our personnel have been sitting idle, since we have no orders to provide services.

In my opinion, these costs occurred because of the absence of a unified banking system.

Ye. Kolesnytsheva, manager of the Esbekshikazakhskiy Branch of USSR Savings Bank, Alma-Ata Oblast: As a representative of the Savings Bank, I would like to discuss our relations with customers. In our case, they are often not very good, mainly because we cannot guarantee depositors prompt and complete withdrawal of money the first time they request it.

Unpleasantness also occurs in issuing wages to enterprise workers through the Savings Bank: often we do not meet the deadlines. What is more, personal responsibility for the accounts are lost, because it is not clear whether wages or a deposit is involved. What is the solution? To leave us only what is our proper business—savings transactions.

Survey Responses

Do the benefits which the bank affords stimulate good performance by enterprises?

- "They do so fully"—100 persons, or 35.1 percent.
- "They do, but not sufficiently"—104 persons, 36.5 percent.
- "They do not act as an incentive"—35 persons, or 12.3 percent.

T. Kezhapaganov, chief of the Karaganda Oblast Administration of USSR Promstroybank: We are anxious about the personnel issue, which is mainly related to the insufficient financial incentives for personnel.

At the beginning of the year, branches were merged. Six were transferred to us from Gosbank. We have been thinking about how to improve the operation.

The way out of the present bad situation might be to create three specialized banks in rayons. And gosbanks are not necessary at all at the oblast level.

B. Bayseitov, administration chief of the republic bank of USSR Zhilotsbank: While we quickly tore down the old structure, we have been unable to set up an entire new structure. It is now clear to everyone, and this has to be acknowledged: it is a serious mistake to set up one bank in the rayon.

The specialized banks need to be granted the right to make decisions to set up their own branches when necessary.

B. Zhazhibayeva, manager of the Kalininskii Branch of USSR Zhilsetsbank, Alma-Ata Oblast: There were oversights in setting up one branch of the specialized bank in rayons. A compromise alternative at this point might be to establish the institution of local authorized commissioners....

G. Idrisova, deputy chief of the Taldy-Kurgan Oblast Administration of USSR Zhilsetsbank: In carrying out the idea of specialization, which on the whole is not a bad one, the structure of the basic unit—the branch—should have been worked out most thoroughly. Now we have an absurd situation: We have as many as 20 clients per economist, and what is more, they represent different sectors of the economy. He has to have a good knowledge of bookkeeping and to understand production technology if he is to effectively check up on enterprises. Where is one going to find such versatile specialists?

Survey Responses

Are bank personnel (in terms of the level of their professional training) able under the new economic conditions to give clients quality service?

—"Yes"—18 persons, or 6.3 percent.

—"Yes, but specialized independent training is necessary"—95 persons, 33.3 percent.

—"Yes, but specialized training is necessary which cannot be done independently"—111 persons, 39 percent.

—"No"—32 persons, or 11.2 percent.

S. Ustinov, deputy chief of the Alma-Ata Oblast Administration of USSR Promstroybank: Although all of us were faced with the accomplished fact in connection with the specialization of the banks, it needs to be taken all the way, and only then should we evaluate whether it is worth it.

On behalf of smoothing out the circulation of money and cash transactions, I propose, at least for the beginning that a single bank be created in large cities. Then at the level of the oblast there would be a point of intersection of the interests of the specialized banks with the branches, and many interdepartmental problems would be eliminated.

The personnel issue can be dealt with more effectively, first, if the banks make the transition to cost accounting, if they are given the rights to dispose of savings within the limits of the wage fund to stimulate the best personnel.

Second, on behalf of better training of future specialists, we need to pursue the practice of sending lecturers from the Institute of the National Economy to the branches. Let them work there and become familiar with all the details—and with that knowledge of the practical work they will train students.

Discussion leader: And we make a counterproposal to you, Sergey Fedorovich: Take part in training students in the training bank, the opening of which is being delayed at present.

S. Ustinov: I have no objections. We will exchange delegations, teach, and learn.

S. Amirkayev, chief of the Kokchetav Oblast Administration of USSR Promstroybank: The first criterion in evaluating bank performance might be, it would seem, the opinion of economic authorities themselves.

In our case, and this is true of many of our colleagues, we have complaints about the computer center and poor technical adequacy.

We need to smooth out the operation of the council of banks, discuss the most problematical issues and make practical decisions.

Unfortunately, we are letting slip performance of the main task—turning credit into an economic lever for management of the economy.

V. Naydenov: Differing opinions have been expressed on ways of improving banking. The conclusion that follows from the discussion is that if the system is not working well, it is a bad system. It is not for nothing that people have been speaking against it. Which means that we need to work out recommendations on how to correct the situation. The organizing committee should study the numerous proposals, including those received as part of the survey. We will present the summarized material of our discussion with you to the republic government for consideration. We wish you success in restructuring.

S. Bogdankevich, department head at Belorussian State Institute of the Economy; G. Nurpeisova, deputy manager of the Zyryanovskiy Branch of USSR Promstroybank, East Kazakhstan Oblast; V. Bakharev, veteran of labor; M. Medetov, deputy chief of the Alma-Ata Oblast Administration of USSR Promstroybank; L. Butyrina, manager of the Frunzenskiy Branch of USSR Zhilsetsbank in Alma-Ata; A. Dzholdasbekov, Institute of the Economy, and N. Kuchukova, Karaganda State University, instructors; P. Korotkov, deputy chief editor of the journal DENGI I KREDIT; and Zh. Zhulbarisov, economist of the specialized SMU-52 of Glavalmastastroy, also spoke in the session of the "Economist" Business Club. Recommendations were adopted.

L. Ablozhey and S. Zykova, instructors of the Kazakhstan CP Central Committee, took part in the meeting of the club.

Recommendations

On the basis of an assessment of the state of affairs and proposals of those who took part in the discussion of the problems related to reform of the banking system and to its improvement, we feel the following most important directions to be advisable:

1. The reform that has been initiated needs to be taken to its logical conclusion by pursuing the principle of combined credit and settlement services to clientele by specialized banks. The main goals of the reform—achieving a businesslike partnership and increasing the impact which credit and settlement has on the economy—can be achieved only by specialized banks at the local level. Settling the question of opening the institution at the lower level (the branch, affiliate, or agency) must be the prerogative of the specialized banks themselves and must be made in view of the cost-accounting interests of the banks to be created. It cannot be restricted by the principle "one bank in each administrative rayon."

2. Optimize the structure of the banking system by altering the relationship between the administrative superstructure and the institutions at the lower level to the advantage of the latter. This improvement is possible in the following alternative ways:

- adopt a three-tier system of management, that is, eliminate all oblast administrations, making the branches directly subordinate to the republic specialized banks;
- abolish all oblast administrations of the banks in which they do not have branches or do not have at least three, and introduce a zonal (interoblast) system of administration;
- reduce the staff size of the oblast and republic banks, and in return strengthen the branches of the specialized banks;
- unify all the specialized banks to create a single commercial bank with departments for the various branches and sectors.

3. Improvement of the banking system can also be furthered by eliminating the monopoly over banking. Enterprises must have the right to choose the bank that will serve them, to take credits from other banks, to satisfy the need for financial resources (stocks and bonds) from nonbank sources, and to create their own institutions of the bank type or to take advantage of their services. Nontraditional forms of mobilization of financial and credit resources are in need of legal foundations.

4. Development of the banking system in future must be closely related to democratization of banking relations:

- by elimination of duplication of functions of financial, monitoring, statistical, and other authorities;

- by setting up a network of competing branches of different banks (commercial, cooperative, innovative, investment);
- by organizing a system of competition in the area of mobilizing the resources of the loan fund;
- by broadening the range of bank services;
- by introducing economic methods of regulating the activity of banks.

5. A legal and economic mechanism needs to be legislatively established for bank activity and should provide a procedure for setting up bank institutions, the area of their operation, the forms and methods of regulating their activity, requirements as to the amount of charter and reserve capital, as to the ratio between "own" and borrowed resources, and as to the liquidity of bank operations. Speed up development and introduction of the "Law on the Banks" and "Regulation on Full Bank Cost Accounting and Self-Financing" as the fundamental documents of the bank reform. Draft the bylaws of the council of banks. In addition to bank supervisory personnel, the members of the council should include representatives of clientele and economic scientists.

6. Introduction of full cost accounting and self-financing presupposes creation of certain conditions: banking institutions at the bottom level need to be made economically independent and authentically allocate credit resources and resources of their own, they need to be given independence in drafting, approving, and carrying out credit plans, and the principles of socialist self-management need to be observed. The branch of the specialized bank should be designated as the cost-accounting unit. The cost-accounting enterprise can have a partner in the cost-accounting institution of the bank that serves it.

7. USSR Gosbank, as the country's main bank, must provide regulation of the activity of the specialized banks primarily by economic methods. It seems possible and advisable to set up a system of requirements as to mandatory reserves that would apply to deposits and credits, to introduce interbank refinancing and free maneuvering of credit resources through the money market on behalf of the most effective use of the statewide loan fund.

8. Full computerization of banking operations should be considered a major issue in the bank reform.

9. The bank reform is in need of ideological support, observance of the principles of democracy and glasnost in preparation and adoption of the most important decisions. Personnel policy should be given a central place in the bank reform: In view of the load, the salary schedule should be revised upward to the level of remuneration of economists of industrial enterprises; provision should be made for a system of retraining banking personnel to meet the requirements of the radical economic reform; and an election system should be introduced for managers of institutions and subdivisions of banks.

The training of bank personnel in VUZ's should be based on integration of study and work. It is considered advisable to organize in Alma-Ata the branch of a training bank equipped with personal computers for the Alma-Ata Institute of the Economy.

10. The principles of glasnost need to be extended to information on bank activity, including information on the state of the circulation of money. It must be accessible to the public for purposes of study.

11. The departmental journal DENGI I KREDIT should have extradepartmental status. In order to guarantee a plurality of opinions, an annual anthology should be published under the sponsorship of the USSR Academy of Sciences; it would be entitled "Theory and Practice of the Circulation of Money and Credit"; and economic scientists and practitioners could publish articles in it on trends in development of banking within the country and abroad.

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REGIONAL DEVELOPMENT

Greater Regional Economic Independence, Formation of 'Growth Zones' Urged
18200086 Novosibirsk *EKONOMIKA I ORGANIZATSIIA PROMYSHLENNOGO PROIZVODSTVA (EKO)* in Russian No 10, Oct 88
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[Article by O.I. Shkaratan, doctor of historical sciences, and L.S. Perepelkin, candidate of historical sciences, Ethnography Institute of the USSR Academy of Sciences, Moscow: "Economic Growth and Development of the Nationality"]

[Text] Even just a few years ago theoreticians and practitioners displayed indifference and a lack of understanding toward the idea of studying the ethnic aspects of production. It seemed obvious at the time that production was identical everywhere, whether it be Uzbekistan, Russia, or Estonia. The administrative-command system of management and principle of planning by directive left no opportunities for "lapping" production to fit the local—regional and ethnic—peculiarities of the population.

What is the problem here, where are the roots of the management stereotypes that have become established? Leninist principles of democratic settlement of ethno-economic problems had largely been lost somewhere at the boundary between the twenties and thirties. The location and the development of production were essentially coercive in nature. The Stalinist model of management assumed a paternalistic version of aid to the previous ethnic districts, a version based on the overwhelming priority of the center. In other words, the material foundations of the present-day economy were built without thorough appreciation of capabilities and interests at the local level. People in leadership circles were convinced that the view was better from the center, that in the context of the proletarian dictatorship the central authority was automatically, without special mechanisms for discussion and reconciliation, internationalist and best represented the interests of all the Soviet peoples and republics. The increasingly frequent charges of nationalism lodged against republic personnel ultimately smothered voices from the local level concerning the specific nature of the problems and demands of the working population of the republics. The system of interethnic relations was influenced with particular force by the transformation in those years of democratic centralism into the bureaucratized command-pressure system of management, which suppressed independence, initiative, and enterprise of the population of the republics.

The orientation toward uniformity of the organizational forms in the economic and social life of the peoples of the USSR took shape in those years and was maintained for half a century. This approach contrasted sharply with the Leninist conception of socialism. V.I. Lenin stressed

that "just as democratic centralism by no means precluded autonomy and federation, so it also did not at all preclude, but on the contrary, presuppose the fullest freedom of various localities and even various communities of the state in working out diverse forms of government life, social life, and economic life. There is no greater mistake than confusing democratic centralism with bureaucracy and the imposition of stereotypes."¹

In the face of historical facts and theory, the conception that held that social progress was a movement from more complicated relations, rich in elements and ideological currents of social structures, to simpler relations, all the way to full social homogeneity was dominant in our country for many long years. It could not but also have had an effect on the development of the peoples of the USSR. Here is an example. One of the frequent consequences of the idea of "overcoming" diversity and the evolution of homogeneity was the recognition of the future promise and true socialist nature of only the state form of ownership. As is well-known, the craft cooperatives were dissolved, consumer cooperatives were essentially governmentalized, an immense number of kolkhozes were turned into sovkhozes, and those kolkhozes which remained were governmentalized. For those peoples which had not gone through the "school of capitalism" this policy proved to be particularly ruinous and, one must suppose, has had an essential influence on the end results of economic activity in recent decades.

On top of this, there was the adverse influence of the idea of the extremely rapid evolution of social relations of the communist type, of the belief that socialism was a brief stage in the country's history. This idea, which came down through the decisions of many party congresses, was included even in the third CPSU Program, adopted at the 22d congress. This encouraged neglect for the subtle and differently directed processes and phenomena occurring in a country with diverse cultures and economic and social forms of life. The belief that development occurred by leaps had an essential influence on the methods used to solve the problems of the transition to socialism from the precapitalist socioeconomic relations that existed in a number of regions. The multistage nature of the evolution of a truly socialist civilization was not seen to be necessary. And just as the Russian peasant was not given a respite "for reflection on his own plot of land" (F. Engels),² so the nomad in the steppes was not given time for organic adaptation to contemporary socioeconomic forms.

In the context of an analysis of the processes of forced urbanization, the well-known Polish sociologist J. Szezepanski proposed referring to processes of this kind, occurring at rates unnatural for the population, as "pathological." In the thirties, an assessment of that kind did not even occur to anyone. The notion of the rapidity and simplicity of the process of reforging the human personality was dominant in the social consciousness, as reflected even in the literature of that period (for example, Bruno Yasenskiy's novel "Chelovek menyayet

kozhu" [The Man Changes His Skin]). And now, many years later M. Suzhikov, philosopher from Alma-Ata, sorrowfully notes that traces have been left in the destinies of the Kazakh people by the "mistakes of the early stages of the transition to socialism, when, for instance, the order was issued to 'abolish' the nomadic way of life without taking into account century-old traditions and the need to carry out transformations gradually," that many contemporary social and economic problems of the republic are a consequence of "that 'fast leap' by means of which we strove to 'drag' yesterday's medieval peasant over into the age of contemporary scientific-technical civilization."³

At this point, after the tragic collisions of the past, when as a consequence all the republics became either industrial-agricultural or agroindustrial, when a transition over centuries was accomplished in decades, it would seem that there is no need for scrupulous appreciation of ethnic peculiarities in connection with the location and development of the sectors of the economy. But the situation is quite the reverse. The importance of the ethnocultural factor in economic growth has increased many times over in the context of the intensification of production and the transition to science-intensive technologies.

First, the experience of the leading capitalist countries which have crossed the frontiers of industrial production shows that the basic structural unit in organizing a present-day economy is the human worker with all his inherent and characteristic peculiarities. As the transition to the new "high" technologies takes place throughout the world, the distances between nationalities are growing very rapidly. For instance, the work traditions of the Japanese, English, German, and North American people have unexpectedly been differently refracted in present-day production. Whereas in the industrial stage of development of technologies the work experience of the English and North American people had certain advantages, at the present time, it is thought by the Japanese researcher M. Moritani, the optimum work traditions in the context of scientific-industrial production are those of the Japanese and the Germans.⁴

Second, the new economic mechanism based on cost accounting (khozraschet) of enterprises and associations is now going through a "testing period." This principle, if pursued consistently, yields high economic results, as the example of China demonstrates. But the experience of our neighbors does not altogether fit the situation in the USSR because of the immense diversity over the country's entire territory of the natural-climatic and ethnocultural conditions and the production potential and sociocultural potential that have been built up. Ethnic (regional, republic) variants of cost accounting and—in view of the development of cooperatives and self-employment—of the economic mechanism as a whole, are inevitable.

Third and finally, the nationality question, which for a long time people tried to conceal behind words about internationalism, Leninist nationality policy, and the equality, brotherhood, and friendship of peoples, has "sprung up unexpectedly." These are good principles, that is beyond dispute. But simply proclaiming them still does not do away with ethnic problems and interethnic contradictions. Economic problems, we suppose, are the basis of those contradictions; or, in other words, the presence of ethnic conflicts indicates a problem situation in the economic sphere. Events in Yakutia, Kazakhstan, the Baltic republics, and the Transcaucasus show how dangerous it is to demonstratively ignore the problems and contradictions in ethnic relations that had been gradually coming to a head.

These are the main reasons that have motivated us to turn to a study of the ethnic problems of the Soviet economy. These questions are meeting with ever greater understanding these days. The first publications have appeared in which these problems are examined with the Soviet Union and foreign countries taken as examples.⁵

Ethnic problems are mostly concentrated on two levels of the economy's operation. The first are the all-union and republic economic complexes and the economic relations among the country's republics (peoples). This is a sphere highly susceptible to conflict. Who has not had occasion to hear statements like "we are feeding you," "they do not want to work," and so on? The "we" and "they" here refer to inhabitants of different cities, regions, and republics and to representatives of different nationalities of the USSR. That is how economic apathy and dependent attitudes are shaped in certain population groups.

Fixed and even biased attention is now centered on the economic relations among the republics. Often diametrically opposed points of view have been expressed on this topic. On the one hand a group of Estonian economists and sociologists recently proposed a mechanism of cost-accounting relations between ESSR and the other republics; in practice, that mechanism would signify a complete blocking of economic borders, which is altogether unreasonable within the limits of a single state.⁶ The other variant, which is the opposite, of economic relations among the republics altogether denies the very principle of cost accounting. Adherents of this opinion supported with the following arguments (we are paraphrasing one of the former secretaries of the Uzbekistan CP Central Committee uttered at an All-Union Scientific-Practical Conference in Tashkent in the spring of 1986): if workers are paid on the basis of the end product, i.e., what they have earned, then the Russian worker with one or two children will live far better than the Uzbek worker who frequently has 5-6 or more children.

This range of opinions came about against the background of the present model of interrepublic relations. That model did not always exist, but took shape historically.

In the federal state proclaimed in 1922, a clear division of functions was assumed between central (statewide) and local (republic) authorities. Foreign relations (including trade), military matters, transportation, and communications were included in the jurisdiction of the central power. Financial affairs, food, the economy, labor, and inspection were under dual jurisdiction. The purpose of the principle of dual jurisdiction was to "embrace all the diversity of the mores, culture, and economic state of the various nationalities and ethnic groups at various stages of development...." Internal affairs, justice, education, health care, social security, and agriculture were left entirely subordinate to the people's commissariats of the republics.⁷ The "Agreement on Formation of the Union of Soviet Socialist Republics" did not even contemplate the respective all-union people's commissariats. The union republics had broad financial independence within the limits of the share of the all-union budget granted them.

This model of relations among the country's principal nationalities satisfied a number of the state's important problems.

First, it guaranteed self-determination and independent development of every one of the country's peoples, which was especially important at a time when "the Union of Republics was judged by some of the Soviet bureaucrats at the center and at the local level to be not a union of equal state units called upon to guarantee the free development of the republics of the nationalities, but as a step toward elimination of those republics, as the beginning of formation of the so-called "single and indivisible."⁸

Second, this structure made it possible to balance statewide and republic interests.

Third, it afforded the center the opportunity to extend aid to the underdeveloped districts, unfailingly moreover so as to take into account specific local features ("...It is decisively necessary to guard against blind imitation of the patterns of Central Soviet Russia.... Any mechanical transplantation of the economic measures of Central Russia, suitable only for a higher level of economic development, to the eastern districts must be rejected").⁹ This policy of aid was designed for the long term, and the main idea was to avoid keeping the districts in a pattern of dependency, but to stimulate their more rapid development.

As we see, the original system of interrepublic relations worked out while V.I. Lenin was still alive differed sharply from the one that now exists. The basic changes occurred in the late twenties and early thirties in connection with collectivization and the drafting of plans for the 1st FYP. They were directed toward increasing bureaucratic centralism, restricting republic independence, adapting central and republic authorities to the administrative-command system of management that was taking shape.

In whose interests was the state structure changed, who gained from this?

We think that in the late twenties and early thirties there was a deliberate substitution of the interests of the sectors and departments for the interests of the center, the interests of the state as a whole. Which accounts for the infringement on the rights of the republics, for directions and rates of development being imposed on them and originating not from the human potential and production potential that existed in the republic, not from the peculiarities of ethnic culture, but from the plans and strategies of the departments and sectors.

The example of the cotton monoculture in Uzbekistan is typical. Cotton growing is one of the traditional branches of agricultural production in the republic. But the type of farming that took shape under the influence of the interested departments was not advantageous to the republic for many reasons. The volume of cotton production planned until 1988 was not backed up with a present-day material and technical base. The immense labor inputs (the particularly high share of manual labor in harvesting the crop) are not compensated for in the prices for this product, which even now are low. Consequently, it is not the producers who gain, but the consumers of cotton outside the republic (to be sure, this is covered, but only partially, by the billions in subsidies and the turnover tax, 100 percent of which remains in Uzbekistan). But who counts in rubles those social losses the republic has suffered, for example, in the form of the "patronage in the form of aid" (in actuality, work done) given to agriculture by city dwellers? As a consequence, after all, Uzbek schoolchildren do not study 10 years, as provided for by law, but 7 or 8.¹⁰ The adverse ecological consequences of the cotton monoculture, the harmful effect of defoliants on the health of the population (Uzbekistan is the "center" of hepatitis in the USSR), are well-known. Finally, in recent years the press has abounded in cases of abuses and machinations involving cotton, all the way to high-level corruption. Is this situation in line with the interests of the republic as well as those of the entire state?

The problem of regulating economic relations among our republics, and in essence among the peoples of the USSR, has become more acute, as is evident. At the same time, there is probably no question in our economy so muddled and unclear. As a practical matter, after all, there has been no mechanism for discovering who owes whom what and who is enjoying benefits which do not belong to him. The usual value indicators such as the size of the gross social product and national income, labor productivity, the output-capital ratio, which reflect more the sectoral composition of the republic economic complexes, are not applicable here.

Dynamic indicators, for example, the variation of the national income, are more informative. Analysis shows that whereas up to the mid-sixties the national income was growing at the fastest rates in the previously backward republics and regions (the republics of Central Asia and Moldavia), at the boundary from the sixties to the seventies and still more in the seventies and eighties, against the background of a general slowing down of

growth rates, the process of stagnation affected to the greatest degree precisely the Central Asian republics (only KiSSR has been maintaining moderate growth rates).¹¹ The differentiation of rates of development results in an ever growing distance between its levels, as confirmed by detailed studies using precise mathematical methods.¹² Thus, so far assertions that have been made in the scholarly and popular press about the continuing convergence of levels of development of the union republics no longer correspond to reality.

Only a few indicators in official statistical reporting make it possible to discover the redistributive relations among the republics. Compare, for example, the growth of the per capita national income produced with the rise of real income. Whereas over the period from 1981 to 1985 per capita national income rose 27 percent in Belorussia, 21 percent in Lithuania, and 17 percent in Latvia, accompanied by corresponding growth of real income by 13, 10, and 6 percent, for Uzbekistan these figures were 4 and 7 percent, in Kazakhstan, Tajikistan, and Turkmenia, where the national income did not grow, real income rose 9, 6, and 8 percent, respectively. Kirghizia was the only republic in Central Asia that offset the growth of real income (11 percent) with a rise in per capita national income (also 11 percent).¹³

Of course, figures on real income still do not determine the population's standard of living. From one republic or region to another, after all, there is a great variation in the backing of the ruble with commodities. But it is legitimate to ask about redistributive relations among the republics which have not been recorded, about the weak correlation between the benefits received and the efficiency of work activity. A similar conclusion might be reached both in analyzing investment in the social and cultural infrastructure and in comparing the growth of real income and labor productivity by republics.

We will give examples. In the 11th FYP, real worker income in Belorussia rose 13 percent, while in the Ukraine it rose 14 percent. At the same time, the rise of labor productivity in BSSR industry was 21 percent, in UkrSSR industry it was 15 percent, in their respective agricultures it was 42 and 21 percent, and in their construction sectors 22 and 15 percent. We would like to know who can explain why the income from employment of the population rose more in the Ukraine when there was such a difference in the result in Belorussia's favor? The growth of per capita income in Georgia was still greater (20 percent), while the productivity of its labor grew appreciably less in its industry (19 percent), in its agriculture (16 percent), and in its construction sector (18 percent) than once again in Belorussia.¹⁴

It is not possible to explain this kind of social injustice. Clearly, there has been no connection at all between the prosperity of the people and the results of their work, and there is no connection now. An analysis of the situation at individual enterprises also shows the endeavor of sectoral ministries to equalize their wage levels.

There are, of course, groups and strata of the population and entire departments that have a vital interest in preserving this situation. But they would not have been able to impose their will on the entire country under the conditions of a different economic system and other forms of economic relations, including economic relations among the republics.

We believe that the principle of cost accounting must become the basis of the economic mechanism not only at the level of individual enterprises or even ministries. It must also extend to the republic economic complexes; in other words, the economic sovereignty of the republics has to be established. A straightforward and public assessment of the product produced and consumed in the republic, of transfers to the all-union budget, and of the subsequent distribution of revenues to general government purposes will help to reduce the tension in interethnic relations and to establish principles of social justice in the country's internal life. The dictate and distribution from the center (in actuality, at the whim of departments, ministries, and sectors) must be replaced by political and trade relations among the republics.

Such a model of the structure of the state suits both the interests of the republics and republic economic complexes and also the interests of the state as a whole. Independent economic development in the light of local republic peculiarities will be constantly measured through trade against the requests of other republics and against the tasks of the entire union. The financial or other aid from the all-union or republic budgets to republics in need of resources, aid that is recorded and explicitly defined, will in this case yield a greater benefit, since it will have to be returned to the creditor by dates fixed in advance.

Of course, development of relations of this kind among the republics requires a number of additional measures, above all expansion of market relations and an orderly system of pricing so as to take into account world market prices. The new system of pricing must also include the setting of prices on products belonging to the sphere of information of human activity. New ideas, new processes, the highly qualified labor expended on them and the possible benefit from their application must be taken into account in interrepublic exchange. At present, however, the regions and republics which are the most mature from the scientific-creative standpoint are losing immense amounts on this basis.

We will specifically single out the question of economic valuation of land. In discussing the shortcomings of our economic mechanism that have been having an influence on the economic development of the republics and thereby also on relations among the nationalities, we should also note the actual absence in our country of differential rent payments on land. The present farming tax does not perform the functions of a differential rent. As a matter of fact, it averages only 10-15 rubles per farm,¹⁵ whereas, for example, the bioclimatic potential

of the soils of Transcaucasian and Central Asian republics exceeds the potential of the soils of other more northern regions as much as 5-10-fold. As a consequence, because of the very high income from private farming operations in the southern republics excessive uncommitted money is accumulated and creates in turn a disproportionate outflow in that direction of volume consumer goods and durables, thereby adversely affecting ethnic relations on an interrepublic scale.

This situation has been having adverse social consequences at the intrarepublic level as well. To be specific, the high differential rent that is left at the disposition of owners of private farms tends to hold back migration from rural areas with a labor surplus, detracts from the efficiency of labor in the socialized agricultural sector,¹⁶ and distorts the structure of income of a portion of the urban population which is receiving unlawful income through abuses in the areas of education, health care, and services. This situation has been having a demoralizing effect on other population groups and has been detracting from their work and their civic activity.

There is no doubt that application of this set of measures will increase the scale of differences between those republics which are developing most dynamically and those which are stagnating in their development. These differences are sizable even now, but leveling, the redistribution of resources from the former to the latter, on the one hand hold back the accelerated development of promising centers, "economic growth zones," while on the other they bring no benefit to the stragglers, since they do not activate the internal mechanisms of their development. This results in a lag in the development of the entire country (which is now 1-2 technological generations behind the leaders of the capitalist world), a stifling of economic activity, and the emergence of ideals related to "equal poverty for all."¹⁷ What is horrible is not that some are rich and some are poor (in relative terms, of course), it is the sufficiency that has not been earned and the undeserved poverty that are horrible. And most horrible of all is to see no future for oneself, to lack the ability and the desire to influence one's destiny through one's labor.

It is easy to see that we are calling for a return to that type of interethnic (interrepublic) relations which was outlined at the beginning of the twenties and replaced in the years of the "great change." But we are not referring to a slavish copying of that experience. New times give rise to new tasks and bring new organizational forms for a multinational state. By taking into account the experience of the past, by developing it relative to contemporary conditions—competently, democratically, and publicly—that is how we see the future course of discussion of the questions touched upon here.

Ethnic problems in the economic sphere also arise at a lower level than the union and the republic economic complexes. These are related to the functioning of individual branches, enterprises, and work positions. We are

referring here to manifestation of the ethnocultural characteristics of workers in specific types of work activity, i.e., of the ethnic aspects of the human factor of production.

So far these problems have been little studied by social science, but the reason is not that the social scientists are sluggish, but that until recently there had been no "social assignment." After all, even today the leading form of production in our country (by type of technology) is industrial production. It assumes that by bringing manpower together with the means of production there will be an ever growing division of labor all the way to the singling out of individual work operations as independent occupations. Which accounts for the labor-intensive, uncreative, and semiskilled labor of the resulting "partial worker," who in his place and role in the production process can be compared to a simple implement of labor.¹⁸ Ethnic and ethnocultural peculiarities of workers can influence the production process only to an insignificant degree. They have not been taken into account by management, which under these conditions has simply divided the regions into those with a labor surplus and those with a labor shortage, and has looked upon manpower along with the other production resources. Of course, the inhabitants of a particular region and members of a particular nationality might not have gone to work in the new enterprises opened there. But even this is not the trouble from the standpoint of the managers. Like any type of resource, manpower can be delivered from one region to another.

This pattern of management of the development of our production is beginning to cause hitches. It turns out that with respect to many parameters a skilled and sophisticated worker trained in certain jobs displays worse results in a particular pattern of organization of production than in other production operations and the highest results in a different type of organization of work. The explanation of this "enigmatic" phenomenon is simple—new, science-intensive, and "high" technologies are coming, and they are radically changing man's role in the production process.

Specialists of those countries where scientific-technical progress resulted at an earlier date in the evolution of science-intensive and labor-saving production and technologies without people were the first to call attention to the ethnic and ethnocultural peculiarities of workers. The competitive struggle between different groups of businessmen was an incentive for developing research of this kind. To be specific, the phenomenon of the "Japanese miracle" has been analyzed in detail. The most prestigious specialists have come to the conclusion that competent management, which took into account the peculiarities of the Japanese worker, including the ethnic peculiarities, played quite an important role in the accelerated development of postwar Japan.

In planning their activity, the transnational corporations unfailingly draw upon data on the ethnocultural peculiarities of future workers. Composite portraits are compiled of the "typical worker"—the Muslim, the Chinese,

and so on. The export of capital is planned in accordance with those data; and at present its principal flows are going to the countries of southeast Asia (Malaysia, Hong Kong, Singapore, Taiwan, South Korea, and the Philippines), whose inhabitants have been excellent at mastering a number of types of production operations of such sectors as machinebuilding, the automotive industry, the textile industry, and the footwear industry, but—especially important—electronics and instrumentmaking.

The foreign literature we have studied, the reviews of Soviet authors, comparison of the results of observations of foreign and Soviet researchers and journalists, and also to a certain degree even the results of our own empirical research make it possible to discover those components of the national culture (primarily related to the traditional ethnic culture) which to one degree or another affect work activity in contemporary production, the measure and structure of its efficiency (i.e., product quality, the readiness for innovation, personnel stability and turnover, job satisfaction, and so on). They include the culture's general value systems; the hierarchical model of occupational prestige; the level of educational aspirations of representatives of the various nationalities; sociocultural norms typical of a given population group; the work traditions of the nationality (that is, the character of work and the work schedule and so on which people are accustomed to); the role structure and role functions typical of the given nationality; the behavioral stereotypes that exist in a given community; the traditional ethnosocial structure of society. And these are only the first steps in studying this problem.

There has, of course, been no ethnic culture that "foresaw" this new and truly revolutionary change in production. The question comes down to the degree to which the traditions of the various ethnic cultures have proven to be appropriate to the required behavioral traits of the worker in the new science-intensive production operation.

We believe that it would be worthwhile to describe in that context the typological traits of the work position and the worker of the not so distant future.

It is becoming increasingly obvious that contemporary production and by and large production of the future is reminiscent of production in the preindustrial (craft) stage in certain principles of its organization (excluding, of course, its materials and the equipment it uses). Postindustrialism again required workmanship to its fullest extent. The individuality of work and the institution of master craftsmen (and apprentices) are coming back, narrow professionalism is dying out, and universality by combining functions and operations is returning, technologies that are multivariant are becoming increasingly widespread, and the work station is becoming an experimental laboratory. The prestige of workmanship and of the master craftsman are growing rapidly in society, small firms are becoming widespread; they take risks with innovations, and they create qualitatively new product designs that have a sharply defined individuality.

Science-intensive and information technologies, which come and go with great rapidity, are becoming the basis of production. There has been an incredible increase in the "cost of a mistake" of every worker, since the share of past labor is increasing substantially relative to the share of live labor. There is a corresponding increase in the requirement of stability of the worker's basic personality characteristic and of the possibility of forecasting his behavior in stereotypical and extreme production situations. Each work station is becoming unique and has to be "commensurable" with the specific worker in question.

The question arises of the key new qualities of the contemporary worker, those qualities which volume flow-line production, which preceded information production, did not take for granted. In our view, these are the following:

- readiness and preparedness for constant innovative activity;
- the ability to act in extreme situations, to make nonstandard decisions;
- initiative and enterprise;
- collectivism, readiness, and preparedness to combine personal, collective, and social interests;
- readiness and preparedness for participation in self-management;
- involvement in the system of continuous education and improvement of qualifications;
- combination of technical sophistication and general culture (the humanities);
- mobility as to vocation, qualifications, geography, and so on.

The task of "obtaining" a worker appropriate to the technological changes which have been initiated is now being advanced into the foreground of management and training. What we have said does not mean, however, that we are calling for a conscious and purposive "fitting" of future workers to a single template. On the contrary, it is the broad range of individual variation, including ethnic variation, that is an indispensable condition for future social progress. The "image of the typical worker" of the near future that is being proposed here does not presuppose a framework for the manifestation of the diversity of the personality, but a limited set of socially significant characteristics directed toward development of the personality and toward fuller disclosure of a man's essential characteristics.

The extent of the justification and realism of the problem posed is another matter. In advancing it, we are relying on the experience of world science. To be specific, we know that production itself, and above all its social organization, has an educative effect on the worker, and this has been studied, for example, in the writings of the American sociologist A. Inkeles. And here is another statement concerning the mutual influence between the worker and the products of his labor. M. Moritani points to the continuity of the miniature products of the contemporary

Japanese electronics industry with the art of miniaturization that is traditional to the country (the well-known "bonsai" and "netsuke"—dwarf trees and miniature statuettes): "The painstaking work required to create exquisite miniature masterpieces is alive in the miniature and high-precision industrial products produced today."²⁰ The development of the production itself, the use of numerous variants of technologies and of the organization of work on the basis of the peculiarities and interests of the workers, in other words, humanization, adjusting the work "to the man"—represent one of the most important factors in shaping the person who will be the worker of the near and remote future.

Russians

1. Primarily oriented toward occupations in industry or construction.
2. Among the industrial branches prefer occupations in machinebuilding, metallurgy, and metal manufacturing.
3. Prefer occupations of the industrial type with respect to the content of work, prefer to work with equipment.
4. The vocational and sectoral orientations of men and women differ insignificantly. Women are more attracted to occupations requiring higher education.
5. In choosing a vocation or workplace, they follow their own inclinations, the news media, and the external advantages of the given occupation (convenient to get to, remuneration, and so on).
6. Less interested than the Uzbeks in the possibility of interaction in the workplace. Greater preference for individual forms of work and responsibility (including pay) only for themselves and their own work.
7. Pay less attention to the nationality of their colleagues in the workplace.
8. Prefer more democratic forms of management by the administration. Relate the authority of management to its businesslike attributes. Typically takes a critical attitude toward the management.
9. Highly exacting as to working conditions and the content of work.

Although these conclusions have not been sufficiently established (the work of studying this problem began quite recently), it is obvious that material of this kind possesses enormous value in connection with development of strategies for socioeconomic development at the

This is, of course, a lengthy process, it will not be completed in an hour's time. But it can be managed, for example, by means of the institutions for training and education. Experience in this kind of work is well-known in the literature.

What ethnic differences should be taken into account in organizing present-day enterprises and when new technologies are being applied? In other words, are there serious and significant differences between workers belonging to different nationalities? According to preliminary material obtained as a result of a survey of one of the Tashkent machinebuilding enterprises in 1985 and also as a result of an analysis of statistical data, workers of Russian and Uzbek nationality differ with respect to the following parameters:

Uzbeks

Primarily oriented toward occupations in the reproduction sphere of activity (trade, food service, health care, education, culture) and also in agriculture.

Among the industrial branches prefer occupations in the textile, leather, fur, footwear, and food industries.

Prefer occupations of the craft type with respect to the content of work and a high status of craftsmanship in performing fine work with the hands.

The vocational and sectoral orientations of men and women differ greatly. Women are less oriented than men toward work in the socialized sector. They prefer occupations that do not require higher education, labor-intensive vocations.

In similar situations, they take into account the opinion or example of their elders, of relatives, they often follow an existing "career stereotype," they look at the value parameters of the work position (prestige, usefulness to society, the status of people in the given occupation, and so on).

Attribute great importance to the possibility of interacting with others in production. Prefer collective forms of work to a greater extent than the Russians and put a value on mutual help and mutual support in the collective. Exacting as to personal relations in production.

Prefer to work and interact in a monoethnic environment to a greater extent than the Russians.

More inclined than the Russians to an authoritarian style of management in the collective. The superiors, the management, enjoy great prestige. Typically strive for leadership in the collective.

Less exacting as to working conditions and the content of work.

level of the country's national economy as a whole and republic economic complexes, but mainly the strategies for development of ministries, branches, and enterprises.²¹ It is a question of discovering the ethno-cultural attributes of manpower that are advantageous

from the economic and social points of view (from the standpoint of development of production and development of the worker), of developing those attributes, and of relying on them for future forward movement.

We will sum up what we have said. Our economy and the country as a whole are now in a period of transition from individual forms of activity to scientific-technological (postindustrial) forms. Internal mechanisms for development of the republic and regional economic complexes must be activated in order to facilitate and speed up that transition. Above all nonreturnable redistribution of resources from one union republic to another has to be eliminated, and the independence and cost-accounting of all economic entities have to be increased. We should welcome and support the emergence of "economic growth zones" and should popularize the experience they have gained throughout the USSR. "Combining" the character of economic development with the peculiarities of the ethnic culture of the population of republics and regions with the character of the social and economic potential that has been built up there can play an important role in the economic growth of individual regions and of the country as a whole.

But at present it is difficult to take into account ethnic and historicocultural factors in the practice of management, since not enough work has been done to study a number of important theoretical questions, such as the degree of influence on economic development of those factors in a comparison, say, with general social, demographic, and other factors, the causes of the unequal role of these factors in various regions of the country, the emergence of ethnic differences in the population with respect to changes in technology, the organization of work, and the organization of production. Nor is there enough clarity about the question that has to do with the problem of overcoming unattractive work—the possibilities of equalization and convergence of the levels of the work potential of the population of the republics and regions through various combinations of the elements of that potential, by virtue of factors that do not coincide, in other words, how to achieve equality in meaningful and enriched work along with diversity in work methods, in the way work is organized, and so on. Scientific substantiation of the specific features of carrying out the general policy of transformation in the sphere of work in various historicocultural regions and various ethnic environments has fundamental importance in this connection.

Footnotes

1. V.I. Lenin, "Poin. sobr. soch." [Collected Works], Vol 36, p 151.
2. K. Marx and F. Engels, "Soch." [Works], Vol 22, p 520.
3. KOMMUNIST, No 18, 1987, p 95.

4. M. Moritani, "Sovremennaya tekhnologiya i ekonomicheskoye razvitiye Yaponii" [Contemporary Technology and Economic Development of Japan], Moscow, 1986, pp 73-110, 126-146.
5. "NTR i natsionalnyye protsessy" [The Scientific-Technical Revolution and Ethnic Processes], Moscow, 1987.
6. See EDAZI, 26 September 1987 (Tartu, in the Estonian language).
7. "Decree of the Plenum of the Central Committee of the Russian Communist Party (Bolshevik) on Relations With the Independent Soviet Socialist Republics. 6 October 1922," "Kommunisticheskaya partiya Sovetskogo Soyuza v rezolyutsiyakh i resheniyakh syezdov, konferentsiy i plenumov TsK" [The Communist Party of the Soviet Union in Resolutions and Decisions of Congresses, Conferences, and Plenums of the Central Committee], Moscow, 1970, Vol 2, pp 401-402.
8. "Resolutions of the 12th Congress of the Russian Communist Party (Bolshevik). 17-25 April 1923," ibid., p 439.
9. "Resolutions and Decrees of the Ninth Congress of the Russian Communist Party (Bolshevik). 8-16 March 1921," ibid., p 252.
10. V. Artemenko, "Deception," PRAVDA, 12 January 1988.
11. "Narodnoye khozyaystvo SSSR. 1922-1972" [The Soviet National Economy. 1922-1972], Moscow, 1972, p 360; "Narodnoye khozyaystvo SSSR za 60 let" [The USSR National Economy Over the Past 60 Years], Moscow, 1977, p 486; "Narodnoye khozyaystvo SSSR za 70 let" [The USSR National Economy Over the Past 70 Years], Moscow, 1987, p 123.
12. V.I. Ionov, T.A. Usypina, and M.L. Uspenskaya, "Research on the Socioeconomic Development of the Union Republics With the Methods of Multidimensional Statistical Analysis," "Sovershenstvovaniye planirovaniye i vsego khozyaystvennogo mehanizma v svete resheniy XXVII syezda KPSS" [Improvement of the Planning and the Entire Economic Mechanism in the Light of the Decisions of the 27th CPSU Congress], Moscow, 1987, p 72.
13. Calculated by V.V. Koroteyeva from the collection of tables "Narodnoye khozyaystvo SSSR za 70 let," pp 123-124, and statistical yearbooks for the union republics for 1985.
14. Calculated by V.V. Koroteyeva from the same sources.

15. A. Shokhin, "Self-Employment. Problems and Prospects," *POLITICHESKOYE SAMOOBRAZOVANIYE*, No 2, 1987.

16. V. Sokolov, "City People in the Cotton. Yet Another View of an Outdated Problem," *LITERATURNAYA GAZETA*, No 11, 1988, p 11.

17. G. Lisichkin, "People and Things," *DRUZHBA NARODOV*, No 1, 1988.

18. Marx in his time pointed out this trend in development of industrial production. K. Marx and F. Engels, "Soch.," Vol 23, pp 433-434.

19. G. Hofstede, "Culture's Consequence: International Differences in Work-Related Values," London, 1980.

20. M. Moritani, op. cit., p 29.

21. As to the method on which this analysis is based, see the book "NTR i natsionalnyye protsessy," Moscow, "Nauka," 1987; "Naseleniye Sredney Azii" [The Population of Central Asia], Moscow, "Finansy i statistika," 1985.

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Reorganization of Three Estonian Ministries Discussed

18200101 Tallinn SOVETSKAYA ESTONIYA in Russian 11 Nov 88 p 1

[Interview by V. Pyankova with Sergey Fedorovich Sinani, deputy chairman of the Estonian State Committee for Industry and director of the Estlesprom (Estonian Timber Industry) Association: "The Offices of the Former, Now Reorganized, Ministries Have Become Empty". first seven paragraphs are Pyankova's comments]

[Excerpts] We remind the reader that in connection with the creation of the ESSR State Committee for Industry, Minmestprom [Ministry of Local Industry] and Minlesprom [Ministry of the Timber and Wood Processing Industry] were abolished on 1 October and the republic's Minlegprom [Ministry of Light Industry] will cease to exist on 1 December.

The former personnel department at the Minmestprom particularly struck me. It was not very long ago, it seems, that entering here one fell into a buzzing hive of employees' and visitors' voices, one saw a pile of document cases and papers. But when I recently visited this well-known department only Vayka Kiva met me. Since 1 July she has been working here alone—instead of the former three personnel workers.

Yes, the ranks of the employees of all three ministries have been noticeably thinned in the enormous building located at 29 Lomonosov Street. In Minmestprom, for example, after its transformation into the republic production association Estprom, only 39 employees remained of 67. Then technically and economically competent specialists filled its enterprises—"Salvo", "Vazar", "Pioner", "Uku" and in the majority of cases the people transferring here even gained in terms of ages.

When Minlegprom was set up as a light industry concern 70 people remained in the administrative apparatus where previously 120 had worked.

Finally, the formation on the base of Minlesprom of the territorial union republic association Estlesprom has exactly half the employees than were in the ministry—55.

But praise and glorification on this basis literally stick in one's throat, for one stumbles, remembering the history of our economy on many issues. Isn't something essentially formal taking place? Or perhaps it's happening that the detachment of managers being cut is only on paper, or in the same way merely decreasing their concentration in one place and dispersing them in many places, in the expectation that the current changes will soon end, as happened in another time, when the experiment in creating sovnarkhozes, which had barely started, finished? Will the sectoral administration return to its former place? The roots of such an administration in the last two decades or so have grown so deep that today it is openly said that the bureaucratic (i.e. administrative) apparatus is like a new class of Soviet society, with all the marks of such a concept. And aren't we too optimistic when we call the impressionable numbers cuts and rejoice in them? And why, properly speaking, given the law on the state enterprise and the market oriented economy, is there still a demand that even larger economic formations should be placed above the enterprises, having power over them? Perhaps these are not necessary, perhaps they are only the reorganized, but essentially the same administrative organs, even with an apparatus that has been almost halved? And if they are necessary, how do their functions differ from those which the former ministries performed?

I turned with these questions to Sergey Fedorovich Sinani, deputy chairman of the ESSR State Committee for Industry and director of Estlesprom.

From the economic point of view our association is a completely different managerial organ than a ministry, he says. In principle it is a large enterprise in which all the rights and laws regarding enterprises and associations are applied. Organizationally it continues many of the activities which the ministry performed. Our sector is one of the republic's most complex which is called upon to take account of and carry out state policy in administering the sector.

This means that the Estlesprom PO [Production Association] fulfills the following functions:

- carrying out measures entailing the fulfillment of republic state orders for the sector
- coordinating cooperative deliveries between enterprises of the sector
- state control over rational output of both expensive and inexpensive furniture, the need for which falls only when the market's saturation with expensive furniture compels the enterprises to lower prices
- planning output of consumer goods
- technical retooling of the sector's enterprises

I want to emphasize that administration of the sector now comes down only to regulating the production activity of the enterprises and excludes interference in activity entailing the distribution of profits. Of course, cases of the administrative style of leadership remain. But for the transitional period, as M.S. Gorbachev said, the combination of both styles—administrative and democratic management of production—is characteristic. Could it be otherwise, since it is of course more beneficial for an enterprise, in changing over to economic accountability, to produce what is more expensive and therefore it is still necessary to compel them to produce what the population needs first of all.

If one talks about democratic principles, here is an example. Control figures for the republic sector, according to the five-year plan and broken down by years, comprised for us in 1989 R271 million worth of products we needed to produce. We exceeded this level during the current year. Jointly with the leadership and corresponding services of the enterprises we calculated that in 1989 we would be able to assimilate R285 million, R14 million more than planned at the beginning of the

five-year period. However, this seemed small to the union ministry and they tried to increase our production program by another R10 million. We had to fight, but we kept our realistic figures although they are also very intense.

There are documents obliging our sector to double furniture production by 1995. Now we are bringing into the association all the directors of our enterprises and asking them how they want to work this out and what kind of capital investments they need in order to make them capable of the task.

We should also be concerned with creating and beginning production in the sector of consumer goods with which Estonia would be able to join the common fund between republics, as well as the foreign market.

[Passage omitted]

We have been preparing for the reorganization since last year. We let people go who were seeking to arrange work for themselves in other departments or in our enterprises, but we did not fill vacancies. A special commission, according to an agreement with the departments, also gave advance notice in good time about a possible release of employees whose jobs would not be necessary after the reorganization. The commission acquainted each person with the list of those positions at the sector's enterprises where they would be able to work, according to their wishes.

[Passage omitted]

But people need to understand that it is difficult to leave a work place where you have labored for many years, or a collective to which you have become accustomed. It is more difficult to leave a city where you have lived for a long time. And although in and of itself the time of reorganization was, of course, difficult, it went through without any particular conflicts or extraordinary events. [Passage omitted] It is too bad that the breakup of the old can never, most likely, take place completely smoothly.

AGRO-ECONOMICS, POLICY, ORGANIZATION

APK Organization Not Suited To Solve Current Problems

18240019 Minsk SELSKAYA GAZETA in Russian
15 Sep 88 p 2

[Article by M. Gurkov, candidate in economic sciences, senior scientific associate of BelNIIEOSKh (Belorussian Scientific Research Institute of Agricultural Economics and Organization), and G. Yeremina, junior scientific associate of BelNIIEOSKh: "The Threat of Extra Chairs"]

[Text] The new organs of administration of the APK [Agro-Industrial Complex] have been in operation for two years already. Time has shown that the structure of the system of agro-industrial associations in many ways repeats the former one that had formed in the earlier ministries and departments.

For example, the structure of today's RAPO differs little from the former rayon agricultural administrations. The changes are negligible. In RAPO, for example, additional groups have been created for norm-setting and wages and for organization of social problems as well. A control-review group of accountants has been assigned. There was a legal consultant—a legal group has been formed. From the production division, which included specialists of varying profiles, divisions have been formed: plant-growing, livestock breeding, and also a division of mechanization, electrification and material-technical supply.

In general, the size of the administrative staff, as compared with the former one, increased by 48 percent, while the administrative functions remained the same. The enterprises and organizations included in RAPO retain their legal independence, planning assignments, limits and material-technical resources, and control over the course of fulfilling the plans is implemented from the higher organizations for the departments. In practice, the RAPO council and administrative staff as before are mainly concerned only with the kolkhozes and sovkhozes. This is attested by the minutes of the meetings of the RAPO councils and the list of questions examined at these meetings in the Borisovskiy, Belynichskiy, Beshenovichskiy and other RAPO rayons. The relative proportion of the sectorial specialists on the administrative staff have retained almost their former level.

At the level of the oblast agro-industrial committee, the structure has remained almost as before. Here only in the plant-growing sector has there been additional creation of a division for fruit and vegetable products and potatoes, as well as a division of the food industry related to taking the processing enterprises under their "wing."

The statistics are already speaking. The relative proportion of the specialists in the agronomic service in the former agricultural administration was 9.7 percent, in animal husbandry—4, and for economists—13 percent. Now, for example, there are respectively, 9.7, 7.6 and 24 percent in the Minsk Oblast Agro-Industrial Committee.

In general, in the last ten years, in the agricultural organizations of the republic the number of specialists in agronomic service has increased by 9, in animal husbandry—12, of veterinarians—by 15 and of engineering-technical personnel—by 14 percent.

While as a whole for the republic, the increased number of agricultural specialists stems from the growth in the number of livestock, conventional harvesting areas, and the increasing amount of technical equipment, it could not always be explained at other levels. For example, in Minsk Oblast, for the abovementioned period, the increase in livestock in conventional calculation was 6.8 percent, and the number of specialists in the zootechnical services increased by 11.4 percent, while the veterinarian service dropped by 5.4 percent. The question arises: How can this increase in the number of specialists be explained? Especially since during this period of time the amount of livestock maintained at the complexes was reduced by a factor of over three. Consequently, the number of specialists in the zootechnical service should have been reduced, since all the cattle were located in complexes where work should have been economical.

As the statistics show, the number of permanent workers has recently dropped by 20 percent on the whole for the republic's agricultural sector, but here the number of engineering-technical personnel and employees has increased by 37 percent. The number of permanent workers for one group of engineering-technical personnel and employees was reduced by 42 percent. Therefore, despite the yearly reduction in labor resources in agriculture, the administrative staff continues to grow.

As shown by an analysis using, as an example, farms in Vitebsk Oblast and farms of six rayons in other regions of the republic, in 1985-1986, the growing number of administrative workers does not exert a decisive influence on the results of the production work. An analogous trend is observed on the farms of Beshenkovichskiy, Brestskiy, Rogachevskiy, Kruglyanskiy, Slonimskiy and Uzdenskiy rayons.

As a result of studying the effect of the number of engineering-technical personnel and employees on the volume of gross output and profit coming from one office worker, it was established that with an increase in the relative proportion of administrators, the indicators for administrative efficiency dropped.

As was emphasized at the CPSU Central Committee Conference in November 1987, improving the organization and administration of agricultural production is of great importance in the system of measures to develop the agro-industrial complex and increase its efficiency.

The urgency of this problem at the present stage is caused by the rising level of agricultural development, intensification of specialization and concentration of production on the basis of interfarm cooperation and agro-industrial integration, as well as the expanding production and economic ties between agricultural and other sectors of the national economy.

An efficient administrative structure ensures the most expedient division of functions among the various services and individual workers. With minimal expenditures for administration, it will permit efficient use of labor resources, land, equipment and other production assets.

Increased concentration and specialization of production will make it possible to convert from the now widespread territorial principle of production administration to the sectorial.

Work on improving the administrative structure on the farms of the republic has not yet been completed. The practical measures implemented in this direction do not always achieve their goal. The administrative structure and the number of staff in most cases are shaped with an orientation toward obsolete forms.

Analysis of the work carried out reveals a great deal of formalism. For example, in 1986 the Beshenkovichskiy RAPO, according to the record, had 90.5 percent of the farms at which the sectorial administrative structure was introduced and functioning, and the Uzdenskiy—78. Actually, in Uzdenskiy Rayon, out of 16 farms, the sectorial administrative structure was introduced only at the experimental base imeni Suvorov. At the Beshenkovichskiy RAPO, at all 20 farms, there are organizational-administrative documents and plans for a sectorial administrative structure. At 18 farms, the intra-agricultural subdivisions were unified at the shops, but at the Vpered Kolkhoz and the Sinitsa Sovkhoz, a multisectorial administrative structure was operating with complete brigades, and at the experimental base imeni Korenevskiy—a combined one.

There is a great deal of confusion at the farms concerning the designation of duties and the wages for them. For example, at the plant-growing shop of the Poliotdelets Kolkhoz in this rayon, instead of the position of assistant brigade leader of the tractor-field-crop growing brigade for mechanization—there is the chief of the mechanized detachment. He is paid wages as a brigade leader of the tractor brigade. At the Kolkhoz imeni Karl Marks, at one interfarm subdivision in plant-growing there were two positions as chief of the section with identical salaries. At the Kolkhoz 40 Years of the BSSR, also, despite the lack of sections, there were two positions—section chiefs.

As before, in determining the number of directors and specialists for the farms, they use standard staffs and staff norms, approved by the USSR Ministry of Agriculture as far back as 1973. They reflect the production

level, formed at that time and take into consideration only one factor: for zootechnicians and veterinarians—the number of conventional livestock, and for agronomists—the conventional area harvested, etc.

These norms are obsolete, and many of them are not taken into consideration. All of this necessitates a more accurate approach to determining the number of specialists in relation to the specific production conditions.

At present, on the average per farm in the republic, there are 38 specialists. At many kolkhozes and sovkhozes the administrative staff and the expenditures to maintain it are growing unwarrantedly. In this respect, the work done to put order into its numbers merits attention. At the same time, the withholdings to maintain the administrative staff are determined in relation to the volume of products sold and the relative amount of profit in the gross income.

In our opinion, the volume of gross output does not take sufficient account of the expenditures for administrative work. For example, a farm having a livestock breeding complex at its disposal, has a considerably larger gross output than ordinary commodity farms, particularly since with their territorial scattering, the work volume increases. It is obvious that when determining the number of specialists in the zooveterinarian service, the number of livestock breeding farms and their territorial separation must be taken into consideration, as well as the number of animals by species. For specialists in the agronomic service, along with the volumes of conventional harvesting area, it is expedient to consider its complexity and the number of permanent workers serving the sector. For specialists of other categories—their criteria must be taken into account.

A great deal of experience has now been accumulated in advanced organization and carrying out agricultural production. The Latvian agricultural farm Adazhi may serve as an example of this. The kolkhozes and sovkhozes included in it at the same time preserve their independence and are bound only by contractual relations. Adazhi guarantees their emergence to certain milestones of crop and livestock productivity, if, of course, the farms adhere strictly to the technology and recommendations proposed for them.

Of course, none of this is free, the services must be paid for. After all, Adazhi, in addition to other things, takes on the trouble involved in storing the seed and the food potatoes, thus relieving its partners from the worry and additional payment for this work. The head enterprise also sells the products processed from the raw material supplied by individual farms.

A new form of further improvement in the mechanism for administration of the agro-industrial complex—the agro-industrial combines—is in operation in many regions of the country, including Belorussia. These are new production-economic formations in the system of

the country's APK and unify enterprises by agricultural output, its processing, packing, storage and sales through its own commodity network and public catering enterprises. In contrast to RAPO, the combines operate on the principles of self-payment and self-financing. The combines are granted the right to independent price-setting for the products sold in their stores, as well as those delivered to other commodity organizations.

During the period of RAPO functioning, science and practical work put forth improved forms of wages and material incentive for administrative workers. For example, the Serafimovichskiy RAPO in Volgograd Oblast converted to collective contracting. The directors and specialists for the farms were also "taken off" salaries—their pay now depends on the goods produced. The wages of all the specialists and directors are calculated per quintal of goods produced by the sector on the farm that they direct. The workers on the RAPO staff are paid for the output of the sector on all farms in the rayon. You want to receive more—certainly. But to do this you must achieve an increase in the output of the sector for which you are responsible. This is because the output of the product depends not only on the immediate executors, but also on the ability to organize work and technology in the sector.

In a word, resolving the new tasks facing the agro-industrial sector requires restructuring the organizational-economic mechanism of the operation, and an efficient and flexible administrative system.

Because of the transition to full cost accounting and self-payment, the need arises for a strict study of the functions performed by the specialists, to eliminate their duplication and set in order the number of administrative workers at all levels of the republic's State Agro-Industrial system.

Director Explains Why Sovkhoz Left RAPO
18240010 Moscow LITERATURNAYA GAZETA in Russian 14 Sep 88 p 10

[Interview with Aleksandr Yurevich Kuzmichev, director of the Zybino Stock-Breeding-Sovkhoz, by Aleksandr Nikitin, LITERATURNAYA GAZETA correspondent: "I Am Leaving RAPO"; date not given; first six paragraphs are LITERATURNAYA GAZETA introduction]

[Text] The Tula Stock-Breeding-Sovkhoz Zybino is well known in the oblast and in the country. It is in the first fifth of the Tula farming industry: yield—40 quintals, milk yield—5000 liters. The other day, however, a delegation came here and asked if Aleksandr Yurevich Kuzmichev, the director, would speak, for the first time, to the CPSU Central Committee on 13 May with the tenants, which the entire country would view and hear, and that it would be not because of the production indicators, but because of the fact that the farm was one

of the first in the country to convert to tenant contracting. This is very interesting and unique. Here there are four cooperatives: machine-operators-plant-growers, livestock breeders, truck drivers and administrators.

The sovkhoz settles with them for products and services at the end of the year from its net income. There are no "wages" here—there is a proportion of the income. There are no salaries, no rates, no rankings—the cooperative pays each worker for services, not for the KTU [coefficient of work participation]. The cooperative of machine operators rents the land, of the livestock breeders—the farms, of the vehicle operators—the garages, and of the administrators (there are many fewer of them here than at other farms)—the entire sovkhoz. Within the cooperative, the machine operators, drivers and group (double) of milkers rent their tractors, vehicles, group of cows. Each one has on hand a specific sum of internal, sovkhoz money.

They settle among themselves and the farm for fuel, repair, feed and services. What they have saved is theirs, and at the end of the year the conventional ruble turns into payment in kind.

This is the system. On the scale of the entire farm the year is not completed, there is a great deal that is not clear, there are doubts and bad language, but meanwhile, the expenditures for the farm have already dropped by 20 percent, and the profits have grown accordingly. It is not surprising that whole busloads come here for experience. It is clear why such a broad, somewhat scandalous coloring has been acquired by a document that A.Yu. Kuzmichev recently sent to the rayon:

"Because of the fact that during the time that the Zybino Stock-Breeding-Sovkhoz remained within RAPO [rayon agro-industrial association], virtually no assistance was given to our farm, and upon the decision of the work collective, Zybino is leaving RAPO."

Aleksandr Nikitin, our special correspondent for the Nonchernozem zone, visited the sovkhoz and interviewed the director.

[Nikitin] Aleksandr Yurevich, do you recall what hopes we all placed in this very RAPO five years ago. How we danced and skipped: "RAPO will plow and sow for us, RAPO will wake us up"...What happened? Where did this disillusionment come from?

[Kuzmichev] Does it not appear to you that these hopes of ours were palmed off by our own dear system? This is not the first time! It is shamefully exaggerated, but should not be reduced, here there is an optical illusion. The curtains change, the musicians in the quartet change seats, and every time there is a cry to the heavens: "Now we will feed the country." Look, the shelves are empty, but in the offices they are overflowing. There was an agricultural administration, it became RAPO—what of it? The style has not changed: pressure, commands,

surveillance. Libertarianism in supply, in planning. Whoever works hard is given less and has more taken. Planning is made up, is from what has been achieved, and supply—is what God sends. Our farm is an example. We have prime cattle, imported, they cost a lot of money, and you can't manage without vitamins. We have a grass meal section. The machine is a write-off, there are no parts, and they give no solar oil. We can scarcely provide flour for ourselves, but here is the plan for us: come up with 300 tons of flour for them! We give you the order, and look for the resources wherever you know....

It is the same with construction. Our yield is higher than any in the rayon, and we obtain masses of grain. My tenants begin to go for me: give us threshing floors! We dry the grain, process it and will sell it as seed—at three times the price. I say to RAPO: "Give us limits for construction." "Give it to us—don't get upset." I say to the machine operators: "Let's build—don't worry, kids." The harvest comes, nothing is given, nothing constructed. The machine operators say: "Kuzmichev is a chatterbox, he doesn't keep his word..." In all the years of RAPO's existence, I have seen nothing good from it—only failures. So why do I need it? Why do other farms need it? When for us it all comes to this: any administrative unit is necessary to society only to the extent that it directly helps production? Help—that is supply, sales, construction, advice. But orders, commands, meetings and spreading out papers—that is to justify the existence of a given office and higher standing ones. Let them take their turn at being busy with "self-service"! Two years ago we refused to pay the fees to support RAPO, and now we are leaving completely.

[Nikitin] Yes, but other farms can say: "That's fine for Kuzmichev, he is governed in two ways. In addition to RAPO, he is in the All-Union Association of Pedigreed Stock Breeders. It will provide for him, but who will care about us? Funding has after all not yet been replaced by wholesale trade."

[Kuzmichev] That is an interesting question, but the information is inaccurate. Yes, we belong to the Pedigreed Stock Breeders Association. I will say more: the pedigreed stock farms are not themselves merchant guilds, they have set themselves up, from below, on their own initiative, but on a basis new in principle. The old way was an administrative superstructure, and we have regenerated it as a scientific-methodological center. It does not give us orders, does not plan and hardly supplies us, unless you take into account a certain amount of combined feeds. It teaches us. There the big shots, the aces in pedigree breeding affairs have gathered, such as A.G. Dankvert and E.K. Smirnova. Here there are no contradictions that we, as a single interagricultural body, must dispel and create another one. What is left over is needed. That is above the farms, this—is between the farms. The experience of other countries, Hungary, for example, indicates that the greater the freedom for the farms, the more vigorously they reach

out for each other, are interlaced by thousands of voluntary ties and create permanent or temporary interfarm organs. For us this process is also beginning.

Our oblast, on the initiative of Vasiliy Aleksandrovich Starodubtsev, created a system, new in principle, to manage the agricultural industry at the rayon level. More precisely—not administration, but self-administration. There is an elected soviet, which is headed by one of the farm directors—in Novomoskovskiy Rayon, by V.A. Starodubtsev. There are interfarm cooperatives for supply, sales, construction and other functions. A council of authorized farms elects and replaces their chairmen. He has at his disposal the profits of the cooperatives, establishes the prices for services, the wages, etc. In general, these are our ours and for us, a tool in the hands of the production worker, and not shackles for it, in the hands of the system. Following Novomoskovskiy, two more regions converted to this system. We at Yasnogorsk also resolved to move in the "Starodubtsev" direction. With the support of the party raykom and G.V. Trushin, first secretary, we created a cooperative for supply. All the farms in the rayon, capacities and enterprises of the former Selkhoztekhnika, Selkhozhimiya and repairmen went there. Somehow it has already begun to manifest itself. The production of sheds to dry products was set up—they are acutely needed. Receiving spare parts was accelerated. A second cooperative was set up—for construction—and we began to think about a third—for sales and processing. But here the RAPO directors began to get worried. They sensed that there were still sailors on the rocks and generals without armies. They began to trample the cooperatives underfoot. You want to know where to get spare parts—pinch them from the RAPO authorization document. They began to pressure the party raykom through the oblast agro-industrial association. There, at the oblast agro-industrial association, they also understand: if the lower units of the pyramid "leak", that will not be good for the upper one. After all, Starodubtsev had already left the oblast agro-industrial association, and is directly under Moscow jurisdiction. In general, we in the rayon have obtained a true diarchy. Now we have decided, with our departure from RAPO, to set an example for other farms, and to put an end to an abnormal situation. Whether my colleagues have the boldness to follow our example—I do not know.

[Nikitin] Here, no doubt, it is not only a matter of boldness. There is a certain distinction between strong, developed farms, like yours, and weak, recumbent ones. They are inclined to see the main reason for lagging behind in the poor fund ensurance. They consider that you are "wealthy" and will take all the equipment, materials, fertilizers and other things from them. Of course, they are not always right, but this mood is successfully used by some people to retain their power over the farmers. The weak cannot support you.

[Kuzmichev] You speak with V.I. Batryrev, director of the Lesnaya Sovkhoz. He has just raised his farm from its knees, but he is in full agreement with me about the

question of RAPO and the cooperatives. He has already gone out to the people, and RAPO is already looking askance at him. Indeed, after all, for the bureaucracy in administration, it is more expensive to do without the weak than without the strong! You ask Vasiliy Ivanovich how they made him, at whatever cost, hang on to the "tails" of the livestock....

As for sharing the funds... If RAPO shares them in some way, then why should we ourselves, a council of sovereign farms, divide any less well, any less fairly? Since we have weak members in some cooperatives, we are directly interested in raising them. We voluntarily deny their use of part of the funds and limits, and will not give permanent loans to people who do not wish to work, for wages or for support. The state too, it seems, is beginning to give up this harmful practice.

I will tell you something else about the funds. This problem is artificially exaggerated. It was engendered by the administrative management and is sticking to it like the devil to a sinful soul. If there is nothing to share, then what is it for? We whine about the shortage of funds, but look what happens when a farm with an everyday bureaucratic system converts to leasing. For two years we did not buy one new tractor—we didn't need it, it was to our disadvantage! We had 46 vehicles, have 18 left, they now and then are not loaded, and we put them out to earn overtime on the highway. In one year our expenditures for motor transport—for spare parts and fuel—were reduced by 50,000 rubles! If they all become lessees, our stores, our agricultural machine building will simply be overstocked. So why not convert? Because, under RAPO administration, our tenant collectives—could be counted on the fingers of one hand, more as an answer than as a deed? And because rent is the kiss of death, both for funding and for bureaucracy, which artificially maintains funding.

[Nikitin] I would still like to return once more to the problem of the poorly developed. It seems to me that in Novomoskovskiy, under Starodubtsev, this problem is being solved a bit drastically, with a smack of administration: the weak farms are being brought into the strong ones, are being eliminated, divided up.... Perhaps there are other methods of evening out the level? Let us say, a collective, in some ways strong, takes another corresponding sector, and with their own forces puts it into order and returns it to its landlord, taking from him a certain proportion of the profit.

[Kuzmichev] Indeed, much better than our forced, "sponsorship", thrust from above, which simultaneously lowers and corrupts both partners. There should be no favors anywhere, including in sponsorship. The principle of leasing is "you must pay for everything!" After all, really, any strong person is in some ways weak and any weak person is in some ways strong. Developed farms as a rule have a tremendous load on the land, and the weak have a great deal of unutilized farm land that is neglected. It can be asked: why break up the "rich,"

wringing from them the superfluous growth percentage, when it is much easier and cheaper to get additional output on the lands of a neighbor with gain both for him and for yourself?

As far as the Novomoskovskiy Agro-Industrial Association is concerned, after all, it is not at all obligatory for the machine operators to copy its structure and work methods. Agrarians of all countries are deeply grateful to Vasiliy Aleksandrovich Starodubtsev for his truly heroic break-through of the bureaucratic front, but we will probably not copy his APO (if the other directors agree with me). We want greater independence for the farms. We do not need an additional central unit of administration in the rayon. Let them plan their rayon plan, for records there is a rayon statistical organization, let the cooperatives serve us, and each can decide for himself. Our powers are more than adequate....

[Nikitin] Zybino has left RAPO. A group of farm directors, in a national newspaper, protested that they had to pay dues to maintain the agro-industrial complex. Two groups of powerful Leningrad plants have set up firms, in order to leave the jurisdiction of the ministries. Perhaps I am exaggerating the significance of these events, but for me they seem to imply something disturbing, tremendous, new....

[Kuzmichev] Listen, after all, we so far stand at the head of our administration! The main point here should be the interest of production itself. How many of we producers there may be: good or bad, conscious or not particularly, after all, this is the essence of our work. They do not fatten hogs or grow wheat in the offices. We are ready for anything! Everyone should work at our farms! At the unworthy offices they have stated their indispensability, their use for society, so for all of us—and the government as well!—the head of this "use" has already foundered, what about us, the production workers, the lowly collectives—nobody asks about us, and how necessary the administration is for us. How many units? What principles? Just as at a circus, they make different passes over our heads: they merge, they separate, they reform, they cut down, they increase. RAPO, the APO, the agricultural firms, the agricultural combines, the main administrations, the NPO [scientific production association], the GPY [main political administration], the OPUPU [oblast production administration] and everything from the top, without asking any farm owners.... We will never be done with bureaucracy! Glasnost goes round in a circle—give it here, to the administrative sphere! Let us set up, secretly, new structures, units and administrative bodies. Whoever of the lower classes asked, when, quite recently, in the years after restructuring, sectorial bureaus were created at the Council of Ministers or The State Agro-Industrial Complex for the Nonchernozem area of the RSFSR? Electing is all around, so give us kolkhozniks not only a chairman to elect, but also higher bodies! What is better for us, what is more convenient: APO? An agricultural firm? Perhaps even RAPO is to

someone's taste? In our rayon, the raykom made a survey about this, but the results of it remained unknown to the masses, even though, after all, we have our own rayon newspaper!

[Nikitin] A referendum on the administrative system?

[Kuzmichev] Why not? In the rayon, in the oblast, in the nation....

REGIONAL DEVELOPMENT

Development Prospects for Nonchernozem Zone Discussed

Transformation Program for Nonchernozem Zone
18240089 Moscow VESTNIK AGROPROMA in Russian No 22, 20 May 88 pp 1-2

[Article by A. Aleksankin, deputy chairman of the RSFSR Council of Ministers, Gosagroprom chairman for the RSFSR Nonchernozem zone: "Russian Nonchernozem Zone: "Policy of Transformations"]

[Text] Russia's nonchernozem zone. This vast region, where powerful industrial centers, large agricultural regions, big scientific forces, and cultural values are concentrated, occupies an exceptionally important place in the life of our entire country. A total of 63.5 million people, or more than 43 percent of the RSFSR population, live and one-half of the republic's industrial output, 37 percent of the milk, one-third of the meat and vegetables, 97 percent of the flax fiber, 56 percent of the potatoes, and 42 percent of the eggs are produced here. The processing industry accounts for 59 percent of the republic's total volume of output.

This vast region has good climatic conditions. Here there are hardly any droughts and the soil responsive to the application of organic and mineral fertilizers is capable of producing high harvests of agricultural crops. Huge areas of natural fodder land make it possible to develop dairy and beef husbandry intensively. There is every opportunity for an intensive production of vegetables, potatoes, and flax.

The party and the government pay constant attention to the development of the nonchernozem zone. In the last 12 years alone 98 billion rubles of state capital investments and kolkhoz funds were allocated to the social sphere of this zone for strengthening the material and technical base of agro-industrial enterprises and organizations. During that period fixed productive capital and the power-worker ratio at kolkhozes and sovkhozes increased 2.5-fold. The production potential of rural and water resources construction was virtually reestablished. Reclamation work was carried out on 9 million hectares of agricultural land. More dwelling houses, preschool institutions, general educational schools, clubs, hospitals, and other social, cultural, and domestic projects began to be built. As a result, it was possible to slightly increase agricultural output at kolkhozes and sovkhozes. During the 11th Five-Year Plan its average annual volume increased by 7 percent and during 2 years of the current five-year plan, by 8 percent.

At the same time, it should be stressed that a radical breakthrough has not yet occurred in the development of the agrarian sector. In many oblasts and autonomous republics the return on invested funds is low and agriculture is developing mostly in an extensive manner.

Primarily, the production of milk and meat resources increases slowly. The insufficient provision of the population of adjoining oblasts with these food products creates strain in the supply of foodstuffs for Moscow, Leningrad, and other major industrial centers.

At the meeting of the Politburo of the CPSU Central Committee held in January of this year a profound analysis of these lags was given, their causes were uncovered, and ways for the further development of the RSFSR nonchernozem zone were mapped out. It was pointed out that the absence of an overall approach to the development of agriculture in the nonchernozem zone was the main reason for its insufficient rates. Scientifically substantiated proportions are not maintained in the development of urban and rural areas, industry, agriculture, processing sectors of the agro-industrial complex, and the social sphere. Housing construction is lagging, medical and domestic services for the rural population are developing poorly, and there is a shortage of general educational schools and children's preschool institutions. The lack of good roads, electric supply, installation of gas facilities, and mechanization of farming and animal husbandry represent bottlenecks.

In its decision the Politburo of the CPSU Central Committee stressed that intensification of the role of the agro-industrial complex in the RSFSR nonchernozem zone in a stable increase in the food stock and its attainment of new goals in the production of key food products are tasks of great political and state importance. In connection with this the RSFSR Gosplan and the Gosagroprom for the RSFSR nonchernozem zone jointly with other interested departments and ministries developed a draft program for the transformation of this vast region. Its social direction is its main distinction from previously adopted decisions. By 1995 it is envisaged providing basically every resident of this region with a well-managed apartment or house and expanding the network of schools, children's institutions, clubs, and public health, trade, and domestic service projects.

Special significance is attached to road construction. Its rates should increase six-fold. By 1995 all rayon centers, central farmsteads, brigades, and departments of kolkhozes and sovkhozes will be connected through good roads. Work on the installation of electric and gas facilities in rural settlements will unfold widely and the application of electric power and gas for production and domestic needs will expand significantly. During the 13th Five-Year Plan the installation of telephones in all production subdivisions of kolkhozes and sovkhozes will be basically completed and the use of radio relay communication will expand.

On the basis of production retooling, improvement in the use of the natural-economic potential, significant acceleration in the rates of overall and integrated development of agro-industrial production, implementation of a radical economic reform, and intensification of democratization by the end of 1995 it is planned to

ensure a growth of 20 to 25 percent, as a minimum, in gross agricultural output as compared with the 12th Five-Year Plan. It is envisaged increasing by 1995 the production of grain to 32.8 million tons, of potatoes, to 26 million tons, of vegetables, to 5.5 million tons, of flax fiber, to 209,000 tons, of meat, to 5.3 million tons, of fruits and berries, to no less than 800,000 tons, of milk, to 24 million tons, and of eggs, to 21 billion. This will make it possible to change over to self-provision with basic food products and to come much closer to the scientifically substantiated norms of their consumption.

Is it within the power of workers in the nonchernozem zone to attain such goals in the next few years? The experience of advanced rayons and farms shows that the task set is fully realistic. For example, let us take kolkhozes and sovkhozes in Novgorodskiy Rayon in Novgorod Oblast, Kurnenskiy and Kirovo-Chepetskiy rayons in Kirov Oblast, Vologodskiy and Sheksninskiy rayons in Vologda Oblast, and many others. The level of their management is such that it makes it possible to gather 30 to 35 quintals of grain per hectare and to obtain 3,500 to 4,000 kg of milk per cow. There is no doubt that the absolute majority of farms in other rayons and oblasts of the nonchernozem zone can achieve such success.

Here an efficient development of the agro-industrial complex will largely depend on how local management bodies and farm managers overcome the contradiction between the existing agricultural production structure and the system of rural settlement. In our opinion, the concentration of the population and social, cultural, and domestic projects at central farmsteads of kolkhozes and sovkhozes should be continued. However, this will require more than a dozen years. Therefore, it is necessary to reexamine the attitude toward so-called villages without prospects. It is necessary to build roads to them, to renovate and build a minimal infrastructure, and to create conditions for the population's employment, which will contribute to the development of these villages.

The existence of small livestock sections, at which a significant quantity of livestock products are produced, also speaks in favor of such a solution of the problem. However, the potentials for increasing them are still used weakly. As a rule, such livestock sections are close to inexpensive fodder on natural land. They are convenient for an extensive application of family and lease contracts and can serve as a good basis for an expansion of the cooperative movement for the production of milk, meat, and other agricultural products.

In the elimination of the shortage of manpower and increase in the prestige of agricultural labor a special role is assigned to electrification and increase in the reliability of electric supply for agriculture. In 1988-1995 it is envisaged completing the reconstruction and replacement of the 100,000 km of electric networks that got out of order and carrying major repairs of 400,000 km. In addition, 140,000 km of new lines will be built. As a result, it will become possible to widely apply electric

power for the heating of and hot water supply for production and nonproduction projects at kolkhozes and sovkhozes. In turn this will release a significant number of people engaged in servicing ordinary boilers and will save a big quantity of fuel. A successful solution of the problem of complete electrification of agriculture is one of the main conditions for a rise in the production standard and for the solution of social problems in the nonchernozem zone.

The personnel problem is especially acute. Important measures for resettling people from other Union republics and regions in Russia, where there is a surplus of labor resources, in permanent places of residence at kolkhozes and sovkhozes of this zone are mapped out. The experience of Kalinin Oblast in leasing livestock, barns, and equipment and allocating arable land, meadows, and pastures to settlers deserves an extensive dissemination. Now all resettlement forms are good if they help to solve the personnel problem. It is only important to create all the conditions necessary for the disposition and fruitful labor of new settlers.

I would like to stress once again: Man and his interests, needs, and expectations should be in the center of the entire transformation program. It is not accidental that substantial funds are allocated to us precisely for the solution of social problems. The entire activity of the agro-industrial complex and the development of kolkhoz-sovkhoz production and of the food and processing industry largely depend on this. Here we still have a great deal of work.

The draft of the new program for the development of the nonchernozem zone envisages serious measures aimed at the completion of overall mechanization in animal husbandry, feed production, and potato and flax growing during the 13th Five-Year Plan. In vegetable growing the level of overall mechanization will be brought up to 70 percent. In the structure of the machine and tractor pool of kolkhozes and sovkhozes plans are made to have no less than 30 percent of harvesting equipment capable of operating under water logging conditions and to change over from the production of individual types of machines to the output of technological lines and complexes for plant growing and animal husbandry. For an accelerated solution of this task the Gosagroprom for the nonchernozem zone and local Soviet and agro-industrial bodies should maximally activate the industrial and scientific potential, which every oblast and autonomous republic have.

As is well known, land is the basis for all agricultural production. Today scientific and technical progress in farming is determined by the development of three basic interconnected directions—systematic work on increasing soil fertility, introduction of intensive technologies, and raising selection and seed breeding to a new level.

Whereas in extensive farming humus is the main source of nutrient elements, with the development of scientific and technical progress this role is shifted to organic and

mineral fertilizers. This is especially characteristic of our zone. The existing situation with the growing decline in fertility requires the adoption of inordinary measures. In the current year it is necessary to fundamentally restructure work with organic fertilizers—the basic potential for the stabilization of fertility in the nonchernozem zone.

Leningrad farmers can apply 19 tons of high-quality organic fertilizers per hectare and farmers near Moscow, as well as Vologda, Mari, and Komi farmers, 10 to 20 tons! Why should field workers in all the other oblasts and autonomous republics not adopt their experience? In order to stop the decline in land fertility, it is necessary to annually place no less than 320 million tons of organic fertilizers in soil throughout the zone, or, on the average, 10 to 12 tons per hectare of arable land. In fact, however, only one-half of the required quantity is applied. Are there potentials for a rise in this indicator? There are, of course.

It would be advisable at every livestock section to introduce an additional payment for fulfilling the plan for the accumulation of organic fertilizers and for properly warehousing and storing them, as this is done on farms in Orel Oblast, the Mari ASSR, and some others. It is necessary to build sites for the storage of manure and the preparation of composts at livestock sections and to introduce control over their warehousing and application.

A decisive role in the development of farming in the nonchernozem zone is assigned to reclamation. During the years of transformation of the nonchernozem zone a great deal was done for the establishment of the material and technical base of reclamation organizations. Occupying 10 percent of the agricultural land, improved land now gives more than 15 percent of all the agricultural output, ensuring an increase of 25 percent in all output during the 11th Five-Year Plan. However, the yield of this land is not productive everywhere. On many farms the yield of agricultural crops on improved land is one and a half to two times lower than the planned one. This occurs owing to the unsatisfactory operation, violation of agrotechnology, and low quality of reclamation work.

Now all the conditions have been created for a substantial increase in the efficiency of land reclamation through an overall performance of all operations. The development of unified fodder tracts of land within the boundaries of the field, brigades, and whole farms according to the indicator of the reclaimed area will become the basis. Everything that is required for an efficient utilization of this land should be built on it: roads, sites for the preparation of high-quality peat and manure composts, premises and storage facilities for feed, and housing for machine operators.

The rise in the standard of farming, primarily land fertility, should be directed toward the accomplishment of one of the main tasks: Meeting the full need of animal

husbandry for high-quality feed in the very near future. Without an accomplishment of this task it is difficult to count on accelerated rates of growth of food production.

For decades agricultural workers were concerned about how to procure feed balanced in terms of energy, that is, in terms of provision with fodder units. The problem of balancing rations in terms of protein, vitamins, and sugars is now very acute. This can be attained through an improvement in hayfields and pastures. In our country this is a big, almost undiscovered, storeroom of feed.

The "protein" program, on whose fulfillment the zone's kolkhozes and sovkhozes have been working for 2 years, as yet does not bring the necessary return. This year farmers have resources, which will help them to solve it more successfully. First of all, kolkhozes and sovkhozes have never had such a quantity of peas and vetch seeds for spring sowing as now. According to calculations, in addition to planned areas for grain purposes, farms can sow for grain haylage about 2 million hectares of a mixture of grain and pulse crops, or 2.5-fold more than last year. This will make it possible to gather no less than 8 million tons of feed balanced in terms of protein, lysine, carbohydrates, and carotene.

Rape is no less important a potential for protein production. To grow 1 ton of rape grain per hectare on an area of 207,000 hectares this year means to balance in terms of protein no less than 2 million tons of grain fodder.

Many agro-industrial committees have completed the organization of "clover" scientific production associations. Such a system in Kirov Oblast, for example, last year made it possible to gather 1.6 million tons of clover seeds and to establish large seed areas on 34 farms and seed plots on another 100 farms in the oblast this year. Expanding areas sown, primarily, with clover and lucerne in the nonchernozem zone to 7 million hectares—this in combination with pulse crops and rape guarantees the solution of the protein problem.

An extensive introduction of intensive technologies is the basis for a steady increase in grain production. Last year they were applied only on 17 percent of the area sown with grain crops, from which 28.4 quintals of winter crops and 18.3 quintals of spring wheat per hectare were gathered. Of course, the increase is negligible. However, there are many examples, when 50 to 60 quintals of grain per hectare were obtained. However, the positive experience has not yet become widespread. Often the means of intensification are not utilized fully and promptly and this results in an incomplete harvest.

In the nonchernozem zone more than one-half of the republic volume of potatoes are produced and their deliveries to the Union-republic stock make up about 70 percent. In recent years we have begun to lose the former fame of the potato growing zone. The production of this crop in many oblasts and autonomous republics remains unstable throughout the years and the quality of tubers is

lowered. There are many reasons for such a situation: weakly developed seed growing, poor protection of plants against pests and diseases, and shortcomings in the mastering of intensive tuber cultivation technology.

In order to improve the state of affairs in potato growing in the next few years, it is useful to learn from our foreign partners and to adopt their experience. For example, in the FRG every farmer has a so-called "test" field. This is a small area, which is sown first of all and serves as an indicator of the appearance of pests or diseases. Both the dates of application of potato protection agents and their dosage are determined on it.

I would especially like to discuss flax. Recently, this crop has been in a difficult situation. The production and processing of fiber flax are concentrated in 16 oblasts and autonomous republics. Only Bryansk and Kaluga oblasts have fulfilled the program for 2 years of the 12th Five-Year Plan for the sale of flax fiber. The zone's farms failed to deliver 89,000 tons of flax fiber to the state, not meeting the full need of plants for raw materials. The quality of stock and straw is low. The situation in flax growing has reached an impasse. Field workers themselves are much to blame for this. However, machine builders and industrial sector workers also let them down, disrupting the output and deliveries of the necessary equipment.

The nonchernozem zone should become the biggest milk producer in Russia in the next few years. This is not an easy task if we take into consideration that this sector has been lagging behind for a long time. True, in 2 years of the 12th Five-Year Plan the situation has improved somewhat. In 1987 the volume of milk production exceeded the level of preceding years by 12 percent. The increase in output was obtained basically through intensive factors. The productivity of cows and milk production are also growing this year. Arkhangelsk, Murmansk, and Orel oblasts and the Mari ASSR have already reached the level of the Food Program for this indicator in the public sector. Farms in Ryazan, Kirov, and Perm oblasts and Karelian, Komi, and Udmurt autonomous republics have all the practical possibilities to fulfill this program.

More than 5,000 to 6,000 kg of milk per cow are obtained at the Kolkhoz imeni Vladmir Ilich in Leninskiy Rayon, the Leninskiy Luch Kolkhoz in Krasnogorskiy Rayon in Moscow Oblast, the Kolkhoz imeni Lenin in Novomoskovskiy Rayon, Tula Oblast, and the Rodina Kolkhoz in Vologda Oblast. At Petrovskiy and Lesnoye sovkhozes in Leningrad Oblast milk production per cow reached more than 6,500 kg. Many other farm collectives reach the level attained by advanced workers and production innovators.

At the same time, the general development of dairy cattle breeding does not yet meet the increased requirements. Farms in Novgorod, Pskov, Bryansk, Ivanovo, Kalinin, and Yaroslavl oblasts have not made significant improvements in this matter. A number of territories

still meet their needs for milk through state subsidies. The reasons for these shortcomings lie in the lag of the feed base, weak mechanization of livestock sections, and poor organization of pedigree stockbreeding. The closest attention should now be paid to all these problems.

An accelerated growth of beef production should become the basic direction in the increase in meat resources. For these purposes it will be necessary to transfer cattle raising and fattening at kolkhozes, sovkhozes, and interfarm enterprises to an industrial base with feed provision, basically, through internal production and to strive for the sale of young cattle weighing no less than 450 to 500 kg.

The production of pork and poultry meat will be increased in rayons with a developed grain economy. We pin big hopes for an increase in the meat ration on the development of a traditional sector—sheep breeding, especially of the Romanov type, whose condition is extremely unsatisfactory at present. In order to raise it, it is necessary to develop an effective system of economic stimulation both for the sector as a whole and for an increased production of wool sheepskin in particular.

The processing industry is the biggest component of the agro-industrial complex in the nonchernozem zone. In the next few years, essentially, we will have to almost fully renew the material and technical base of meat, dairy, and food industries. The redistribution of capital investments in these sectors has already begun and during the 13th Five-Year Plan they will be doubled as compared with the 12th Five-Year Plan. Extensive work on improving and intensifying the integration and cooperation of processing enterprises with kolkhozes and sovkhozes and bringing them maximally closer to places of raw material production is also envisaged. With due regard for the zone's characteristics paramount attention is paid to an increase in the production of dairy products and an expansion of their assortment and to a complete industrial processing of skim milk, buttermilk, and whey resources.

The task is set as follows: To sharply increase commodity output per ton of milk, livestock, and poultry during processing. For this purpose secondary meat resources will be more widely utilized for the output of food products. Capacities for processing potatoes both for the output of starch and for the mass production of semifinished products, especially puree granules, flakes, and other types, will be developed in an accelerated manner. In order to accomplish this task, seven big tuber processing plants will have to be built.

An acceleration of the rates and quality of all construction work is the basis for a successful realization of the overall program for the development of the nonchernozem zone and its core. During the forthcoming 8 years it is necessary to carry out such work in the amount of 70 billion rubles—a heretofore unprecedented volume.

Soviet bodies, agro-industrial committees, and construction organizations face the task of determining the optimum priority utilization of funds. First of all, they should be allocated for the construction of housing and other projects for social and domestic purposes and for the development of processing sectors and the production base of plant growing and animal husbandry, especially at economically weak and remote kolkhozes and sovkhozes. Good experience in this matter has already been accumulated in Orel Oblast and in some other oblasts and autonomous republics.

The Gosagroprom for the RSFSR nonchernozem zone was instructed to ensure in 1988-1995 the commissioning of about 200,000 km of motor roads, including 130,000 intrafarm ones. Union and republic construction ministries, subdivisions of the Ministry of Defense, and other departments are enlisted in the fulfillment of this decision.

The process of improving administration and the economic mechanism of management is gathering strength in the region's agro-industrial complex. There is a search for progressive forms of production and management organization at a rayon level. Forty agro-industrial combines and associations have been established and production and scientific production systems become ever more widespread. Democratization of management takes place in RAPO.

In 1987 the proportion of contract collectives engaged in the production of plant products comprised 84 percent. A total of 83 percent of the entire arable land was assigned to them. In animal husbandry more than one-half of the brigades and links work on a contractual basis. A total of 47,700 families concluded contracts with farms for the production of the most labor intensive crops and 2,800 families, of livestock products. Contract collectives in Orel and Tula oblasts and the Chuvash ASSR attained a high economic production efficiency.

The contract link from the Vesna Kolkhoz in Orel Oblast headed by L. V. Maltsev can serve as an example of highly productive labor. It consists of six machine operators. Last year it produced gross output worth 204,000 rubles. The yield of grain crops totaled 32 quintals per hectare (the plan calls for 20.5 quintals per hectare). Labor expenditures on the production of 1 quintal of grain were reduced by 22 percent as compared with last year's level and production costs per quintal of grain totaled 6.25 rubles with a plan of 11.11 rubles.

Ye. I. Arseniyeva, a member of the Berezovka Kolkhoz in Ibresinskiy Rayon, the Chuvash ASSR, together with her son concluded a contract for fattening 100,000 head of young cattle. In 1987 with a plan of 700 grams they obtained an average daily weight gain of 870 grams from the group of livestock assigned to them. Production costs turned out to be 20 percent lower than the average throughout the kolkhoz.

These graphic examples inspire us, point to the big potentials for increasing agricultural output in the non-chernozem zone and to the good mood of field and farm workers, and instill in them confidence that the restructuring begun in agriculture and the transformation of the entire agro-industrial complex of this vast beautiful region will be carried out successfully and will bring abundance and the joy of creative labor and vigorous life to its residents.

Gosagroprom Committee for Nonchernozem Zone Announced

18240089 Moscow SOVETSKAYA ROSSIYA in Russian 25 Feb 88 p 2

[Ukase of the Presidium of the RSFSR Supreme Soviet on the Formation of the Union-Republic State Agro-Industrial Committee for the RSFSR Nonchernozem Zone, 24 February 1988]

[Text] The Presidium of the RSFSR Supreme Soviet decrees:

To form the Union-Republic State Agro-Industrial Committee for the RSFSR Nonchernozem Zone.

V. Orlov, Chairman of the Presidium of the RSFSR Supreme Soviet

S. Chistoplyasov, Secretary of the Presidium of the RSFSR Supreme Soviet

VASKhNIL "Brain" Center for Nonchernozem Zone

18240089 Leningrad LENINGRADSKAYA PRAVDA in Russian 8 Apr 88 p 2

[LenTASS Report: "Overall Program Is Needed"]

[Text] A "brain" center was established at the VASKhNIL Department for the RSFSR Nonchernozem Zone. Its task is to improve the use of the region's scientific and technical potential. Academician V. G. Mineyev, chairman of the Nonchernozem Department at the all-Union Academy of Agricultural Sciences imeni V. I. Lenin, reported this, presenting the accountability report at its annual meeting.

He stressed that, in order to improve scientific support for agro-industrial production, in addition, four scientific research institutions were transferred to the department. A total of 36 such institutions and 24 experimental stations, whose associates include a big detachment of academicians, corresponding members of VASKhNIL, and doctors and candidates of sciences, now service agriculture and the region's sectors accompanying it.

Vast forces have been activated and they carry out large-scale work. For example, the slump in production has stopped, labor productivity has risen, and the output of farm and livestock products has increased. However, kolkhoz and sovkhoz economy continues to be of an expenditure nature. Production costs per 100 rubles of gross output, on the average, have increased by 20 rubles. As before, the share of manual labor is big.

The level of social infrastructure in rural areas of the nonchernozem zone is low. There is a shortage of stores, hospitals, schools, and children's combines. The state of affairs at the key area of farming—the grain field—remains alarming.

Scientists and specialists noted the need, in connection with the transition to cost accounting and self-financing, for the formation of a goal-oriented overall scientific research program and improvement in the coordination of scientists' actions. Advanced, new varieties of agricultural crops and the further selection of highly productive animals are needed.

A. V. Pavlov, secretary of the Leningrad Oblast Party Committee, took part in the conference work.

POLICY, ORGANIZATION

AUCCTU Chairman on Workers' Control System for Consumer Goods

18270016a Moscow SOVETSKAYA ROSSIYA in Russian 18 Oct 88 p 1

[Interview with S.A. Shalayev, AUCCTU chairman by S. Blagodarov: "Under Worker Control"]

[Text] [Blagodarov] Stepan Alekseyevich, this year production of meat, milk, oils, confectioner's items and consumer goods has risen 3-5 percent compared with last year. Although small, there is growth, but this cannot be seen on the store shelves. I make no mention of the shortages that readers write about, that goods that were available in adequate quantities a year or 18 months ago have disappeared...

[Shalayev] Many such signals are arriving at the AUCCTU. Of course, only adequate production of all groups of goods and foodstuffs will solve the problem in a fundamental way. But shortages are often created artificially.

For example, not one store in Ryazan had good soap but 19,000 bars were found at a single store in Moskovskiy rayon. A trifle? But it gives rise to certain attitudes and to rumors. At Store No 7 of the Orenburg Railroad Department of Workers' Supply footwear and knitted items worth several thousand rubles were put aside. During the first 6 months of this year alone the organs of the RSFSR Main Administration of State Quality Inspection of Goods and State Trade Inspection has revealed 509 cases of laying aside goods in short supply in Moscow; in Penza Oblast the figure was 208, in Saratov Oblast 153, and in Vologda and Kursk oblasts, 121 each. Such facts have been also unmasked by working controllers in the trade union in very recent days. For example, at Store No 38 of the Department of Workers' Supply in the Perm branch of the Sverdlovsk Railroad imported jackets, fabric, carpet strips and other goods were hidden under the counter. At Store No 83 of the Motovilikhinskiy rayon food trade facility in Perm Oblast it turned out that condensed milk, canned stewed meat and buckwheat had been set aside (and in considerable amounts)... In short, the inspections are showing that instances of holding back and setting aside and putting goods under the counter have become a widespread phenomenon.

[Blagodarov] What can be done?

[Shalayev] Establish strict workers' control over the reception and distribution of goods. Urge on and stir up the working class and all workers in the struggle against this evil. In some places from 30 to 40 percent of goods are being handled on the side, bypassing the stores. Imagine if this 40 percent were returned to the purchaser! People understand that not everything can be

resolved immediately, but what has already been produced and assigned must be returned, without the speculators, and not on the "black market." And no one except the workers themselves can do this.

Why was it easier for us in the first years following the revolution, during the years of the Great Patriotic War and during the period of postwar restoration? We had considerably fewer products and goods than today but we managed to withstand and overcome the devastation and feed, warm and clothe people because the little that we had was shared fairly, and everyone barred the road against the marauders and speculators. And we managed to do this because global and all-embracing workers' control by the trade unions stood on guard for the interests of justice. At that time they did allow the revolution and socialism to be discredited, and today we must not allow perestroika to be discredited.

[Blagodarov] Yes, but how can this be done in a practical way? It must be candidly stated that the workers' control commissions that exist under the trade unions have for many years been inactive. Many of them, at any rate. And second, how, under conditions of cost accounting and self-financing can the worker be separated from his machine tool, from his brigade? What is the advice of the labor collective council on this score?

[Shalayev] With regard to the passivity of many trade union organs and workers' controllers, I agree that there is fault here. And the CPSU Central Committee draws our attention to this. The task in the trade unions is now to strengthen workers' control and give it special priority. The composition of the workers' groups is being re-examined everywhere and other steps are being taken.

Pick up any telegram from among those arriving in recent days... Here, for example, is one from Kemerovo. Look at how much we have managed to do in the first 2 weeks following adoption of the AUCCTU Presidium resolution. The number of workers' controllers has increased 9,000. All major stores and dining halls, bases, warehouses, trading facilities and meat combines have been placed under control. Some 1,130 inspections have been carried out. An operational working group has been set up under the trade union council to coordinate control actions throughout the oblast. Steps have been taken quickly to establish proper order. The guilty have been severely punished: eight leading workers have been deemed untrustworthy because of gross violations of the rules of soviet trade. Some 305 people have been made answerable to the trade unions...

Now regarding fears that people will not be sent out. We are convinced that each person will display a readiness to engage in this important public issue, usually in his free time.

The trade union councils have requested many collectives to expand the composition of workers' control and strengthen it, and there has not been one single case in

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which we were refused. People understand the importance of the task: the working class must itself defend itself and see changes already over the next two or three months.

In addition, the trade unions are ready to provide material support for the activity of workers' controllers. What do we have in mind here? First, we have agreed to use the trade union budget to pay for the labor of those comrades who are separated from their main place of work in order to take part in inspections (if the administration is reluctant to pay them an average wage for carrying out this important public mission).

Second, we want to make extensive use of the life experience of pensioners who previously worked in the services sphere and participated in workers' control. The trade union councils have been given permission to make payments (R50 per month) to those pensioners who systematically participate in inspections.

We are striving for a situation in which the kind of order will be established in trade in stores by which workers' controllers should participate in the reception and sale of all goods, in particular those in short supply, so that nothing is put aside. The workers should know precisely that what has arrived will be sold, and when, and at what price. Control must be organized from base to store shelf, from the time a store opens to the time it closes, and all loopholes for pilfering at work must be closed.

[Blagodarov] Stepan Alekseyevich, in the [word illegible—ed] teletype messages, and other teletype messages arriving in the AUCCTU every possible support is being expressed for workers' control by party organs. Is this true everywhere?

[Shalayev] First of all I would like to note the support in principle for the organization of workers control from the CPSU Central Committee. At the local level the trade unions are also receiving full support from party and soviet organs. With their help it has been possible literally in a matter of only days to resolve a multitude of purely organizational questions. Only three days after the adoption of the AUCCTU Presidium resolution on workers' control, at the request of the trade union council in Tyumen Oblast the local soviets of people's deputies were given an assignment—to create at all enterprises in the trade and everyday sphere conditions that insure unhampered activity by the workers' controllers. Similar orders have been issued by the oblast administrations for trade and public catering. Who will now dare to close the door on the workers' controller?

[Blagodarov] Striking figures have been cited at AUCCTU meetings: prices are rising in many of the fashion houses, baths and saunas at beauty shops, jewelry workshops, ceremonial offices and so forth. It turns out that wherever a person may go he may be cheated.

[Shalayev] Failure to display goods, overcharging wrong weights, and higher prices and tariffs established in the Khabarovsk and Stavropol areas, the Buryat ASSR and Tuva ASSR, and Chelyabinsk, Omsk, Perm and other oblasts have been found in one in two, one in three and one in five of the enterprises inspected. What is even more alarming is that according to figures from the State Committee on Prices the number of violations is not declining but growing. Workers' control should bring proper order here also.

[Blagodarov] You said that the working class must see changes in the next two or three months. I think that it is simplest to bring order to the plant dining halls themselves. When one hears that at the Saransk "Svetotekhnika" Production Association and other enterprises that meat dishes prepared in the plant dining hall are a great rarity, then one simply does not know what to think.

[Shalayev] First the question of stocks of meat products. They are now being satisfied for workers' dining halls about 80 percent even though stocks for public catering are allocated totally by region. For example, at the country's largest metallurgical combine in Cherepovets only 65-68 percent of stocks are being made available. It is the same at "Atommash" and in other places.

Here, the fact is that at the local level stocks are allocated for trade management and department purchases. And naturally, for trade it is more profitable to send meat and other products in short supply to restaurants, markets, stadiums and so forth than to workers' dining halls. Products are allocated for the workers and they are supplied. Redistribution to the detriment of the interests of the working class is occurring in Ivanov, Tambov, Pskov, Arkhangelsk, Rostov and Voronezh oblasts and the Bashkir ASSR. This has now become a system.

The procedure is now being changed in the country for the distribution of food stocks for public catering, for sale and so forth. The oblast and kray ispolkoms and the council of ministers of the autonomous republic will make the decisions. And we want our trade union councils also to be involved in this matter.

The low quality of food preparation, failure to display products in one in three dining halls, and higher prices in one in four have become an impermissible norm, and people are indignant at the organization of meals during the evening and night shifts. Where are the trade union committees and workers' control? We are now establishing a procedure whereby a workers' controller is present at each loading of products into the steamers and when the food is distributed. This has worked well in the past.

And one other thing must be mentioned: it has become the practice to cut down centralized stocks of products to those enterprises that have organized private subsidiary farms or include in their stocks products from local farms. This contradicts the decisions of the CPSU Central Committee and government.

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[Bogodarov] Stepan Alekseyevich, the impression is being created that almost a majority of workers in trade and public catering and everyday services are light-fingered. Meanwhile the prestige of this profession is falling and at many schools teaching this range of subjects, where there are shortages, there are vacancies and a high rate of turnover. Are we not making the situation even worse?

[Shalayev] I am deeply convinced that the majority of workers in this sphere are honest people. And the task of workers' control is to reveal the best workers in the trade and everyday services sphere and rely on them, expressing every kind of public recognition of those who work honestly and conscientiously in this difficult profession. But at the same time it is essential to reveal and give a principled and straightforward appraisal to each instance of violation and abuse and to name the specific perpetrators.

[Bogodarov] And a final question. How can the press help in this noble endeavor?

[Shalayev] Without the press we shall get nowhere. If we want to conquer this evil then it must be made public. For all sharp dealers fear publicity and public unmasking.

We ask you, the journalists, to take this under your own control and I think that through our joint efforts we shall get things moving.

Consumer Protection Organizations Needed
18270002 Moscow PRAVDA in Russian 10 Sep 88 p 3

[Interview with A. Yarovikov, candidate of economics, docent of the Correspondence Institute of Soviet Trade by V. Brovkin: "Without the Right of Protection: Who Will Stand Up for the Consumer?"; first paragraph is PRAVDA introduction]

[Text] In the press there are an increasing number of reports on associations, unions and federations of consumers, operating in 88 (such a figure is given) countries, including in socialist countries. The goal of such public organizations is the protection of the rights of consumers. But do we really differ so much from others? Are we not falling into the position where we cannot obtain for an honestly earned ruble a needed, durable thing because it is in short supply or is not produced at all? And are we not really deceiving ourselves bitterly in our hopes, are we not inflicting material, not to mention moral, damage when defective goods are palmed off on us? The administrations of the stores and industrial enterprises brush aside our declarations and letters, like a troublesome fly. And most often it is beyond the powers of any Ilya Muromets, it turns out, with a ballpoint pen at the ready, to pierce through the bastions of bureaucratism, reliably built of departmental rules and instructions during the many years of stagnation. Who will stand up for the

consumer? This is the subject of our talk with A. Yarovikov, a candidate of economics and docent of the Correspondence Institute of Soviet Trade, who came to the editorial offices to share his thoughts and observations.

[Brovkin] Aleksandr Nikolayevich, in the triad "industry—trade—consumer", the latter reminds me of the youngster who started to play "Zhuchka" [house-dog] with two lanky fellows. They are, as it were, condescending to the younger one, but they kick him, nevertheless not trying even to restrain their mighty powers.

[Yarovikov] The comparison, it appears, is justified. The lack of rights of the consumer is obvious. Needed things keep disappearing from the store counters, and the consumer does not have the opportunity to influence the situation. For many types of goods, as sociological research shows, the overwhelming part of the purchases are forced ones. People do not take what they want, but what is available. And guarantees for industrial goods? What do they guarantee? Unfortunately, not high production quality, but great troubles in the case of breakage, repeated walks to the repair shops for information for the exchange of the commodity. Things turn out completely badly when design and technical breakage lead to health injury and even to the death of people. Many such cases have already been collected. There are televisions that have exploded, as a result of which consumers have found themselves in hospitals and their apartments have been set on fire. And here is an incident from the press: The Ussuriyskiy Dairy Plant put out so much poor-quality sour cream that 2,500 people suffered as a result! At a meeting with journalists, Ye. Chazov, the USSR minister of health, confided: In schools the children's food service is organized so poorly that the children frequently pay with their health for the careless attitude to the organization of their breakfasts and lunches on the part of the adults. There are quite a few cases of poisoning due to the increased content of nitrates in products.

As we see, the very life of the consumer frequently proves to be without the proper protection. And all the more so his purse. During the last decade, the average level of prices for televisions and washing machines has increased by one-third, refrigerators—by one fifth, cameras—almost double. A cheap assortment "is wiped up" clean. Without publicity the prices of light industry goods, vegetables and fruit are increasing. Because of mismanagement, and at times, let us say directly, because of criminal intent, that which should be sold in broad assortment in the stores is rotting at the vegetable bases. In the markets, the discord of state prices, consumer cooperative prices, and, finally, prices by agreement so-called, calls forth bewilderment in the majority of the consumers. This agreement is not with us, but in firm calculation on our purse. Driven into a corner by the shortage, the consumer is forced to pay with his hard-earned ruble for the greed of those standing on that side of the counter.

The defenselessness of the consumer is not simply his personal difficulties. It led to disorder in the state economic mechanism. Judge for yourselves. In spite of the spontaneous growth of prices, it is not possible to balance the effective demand of the population for goods with their production. What has been earned is not being returned to the state through trade. In the savings banks, there is frequently not a penny by the time the labor collectives have been paid their wages. The matter already reaches sharp conflicts. The additional printing of "paper" only exacerbates inflationary phenomena. Do we need such social shocks?

To correct the situation, a new economic mechanism has been called upon. But it has not yet taken shape, and when it starts to work full force, the problems of the protection of consumer rights will remain. The point is not even that then, too, it will be necessary to settle individual cases that arise at the counters. Industry and trade need a worthy partner, with whom it would be possible to discuss any questions. It can also become a public organization which expresses the interests of the consumers.

[Brovkin] In the period of strict political formulations, such a statement of the problem was impossible. Even the attempt to uncover them called forth a sharp reaction: "Under socialism the state protects the individual." This formula chopped off almost all possibilities to make use of the enormous potential of the public in defense of its rights, in particular consumer rights. But, you see, there is always a concrete worker who is responsible for the fact that potatoes have not been brought to the store in time, or the department forces through the next instruction that opposes the interests of the consumer. Hidden from public opinion under the wing of state authority, the simply incompetent administrator, the departmental bureaucrat, and the corrupted "mafioso" felt that they could get away with anything. But what can the public do in the struggle against these phenomena?

[Yarovikov] In answering this question, one should, perhaps, several factors. The first, for example, is the real experience of consumerism—the movement to protect the rights of consumers in the countries of Western Europe and the socialist countries. How can we not try to extract what is useful that can prove useful in our conditions as well? The second is the available, though at times local, experience of already existing formal and informal associations of consumers in our country. The third is the real needs of including the public in the processes of the formation of the commodity market and distribution.

[Brovkin] Then let us conduct further the discussion according to this scheme. Tell us, even though concisely, what you saw when you were abroad and to what conclusions you have come having studied the specialized literature.

[Yarovikov] I shall dwell on the most important. In the United States, let us say, the movement for the protection of consumer rights, especially during the period of its flourishing, encompassed not only the consumers themselves, but also legal associations, the press, the trade unions, and even state organs. The demands and petitions of the consumer associations have the ear of the legislators, who are supporting their initiative in the struggle for the saturation of the market with goods, for the harmlessness and high quality of articles and products. The manufacturers turn for practical advice to cost accounting consultations of associations that conduct research into the needs of various groups of the population for goods, taking into account their demand and wants with respect to prices. Here are the sources of marketing—the control of the processes of satisfying the demand for goods, the creation of new products, and their movement to the consumers.

In the socialist countries, the movement for the protection of consumer rights for the time being is young. It is focused basically on the struggle against concrete cases of the infringement of consumer rights. The All-Polish Federation of Consumers is conducting a struggle for the high quality of products, extends legal advice assistance to consumers, and defends their rights in court. The federation tries to secure from the ministries and departments the adoption of serious measures in the sphere of design and manufacturing methods when massive defective output is discovered, or changes in the rules of trade that do not satisfy consumers.

The All-Union Council of Consumers, which has created branches throughout the country, organizes public control over the supply of outlying regions with food products and over retail prices.

[Brovkin] What, in your view, are the prospects for the creation of consumer associations in our conditions? Who should show initiative?

[Yarovikov] The entire practice of distribution in our country in the conditions of command and administrative methods, as a rule, was oriented at state forms. Even in the consumers' cooperative societies, which, as it were, were based on their shareholders, the governmentization of economic activity has practically taken place. The ruling apparatus has not listened to the opinion of the shareholders. Trade in the village thus has remained dozens of years out of the way. There is no point in talking about the prices. They are frequently higher than the state prices. Could, with good proprietors and the observance of democratic principles, things be conducted so demonstratively against the interests of the villagers? The economic methods of management, the approval of which has become the policy of the party, are creating completely different conditions also for the distribution processes. It would seem, the role of the public in them can only grow. Thus, objective conditions are being created for the work of the consumers' societies.

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Who is to show initiative in regard to their creation? Of course, those whose assistants they can become—the Soviets of People's Deputies. And where to begin? With the solution of the concrete questions that are being pointedly posed by people. The mail of any rayispolkom for a month and the survey of the members of the society being created themselves will reveal a multitude of urgent concerns.

[Brovkin] We already have quite a few public organizations based on interests. Let us say, [organizations] of bibliophiles, motor car enthusiasts. In the conditions of shortages of literature, spare parts for automobiles, garages and parking lots, these societies in one form or another try to join in distributive relations. I remember, in the lobbies of the constituent congress of the bibliophiles there was a passionate discussion of the question: Will they give them the right to distribute the literature that is in short supply. They did not give them such a right straight out. But the bibliophiles have a network of people's stores. How did they prove themselves? Not in the best way. A great deal of negative criticism of the fact that the trade "went around" the bibliophiles, through the people's stores it pushes through the shortage with the load, which it is prohibited from doing in the most categorical manner. The sale of batteries, tires, and other spare parts in short supply, above all among members of the society of motor car enthusiasts calls forth the resentment of car owners.

[Yarovikov] This is the result of inexperience in business. One could advise bibliophiles to show greater adherence to principle in their relations with the trade. The main thing is to select the correct position from the very outset. Frequently formal and informal organizations are supported by departmentalism. There is a desire for privileges for oneself, the growth of the ranks of one's members, if this is an official organization. The society of motor car enthusiasts, for example, would become more popular if it would inspect the needs not only of its members, but as a whole of the car owners in the region, the small town, the settlement, if it would take stock, and if it would help the auto stores to avoid a rush when spare parts arrive.

We pay little attention to the various informal associations that spring up spontaneously. Go to any furniture store and you will find the man with a notebook who is recording the queue on the suite, the wall, the set of upholstered furniture. This is a mass phenomenon. One cannot but value the public activity of the organizers. But...frequently there are cases of abuses. In the notebook, it happens, one enters "his own" people, at times double-dealed speculators. If all places that trade in goods that are in short supply are kept under the control of a consumers' society, such a thing for sure will not happen.

In general, an analysis of the activity of formal and informal associations of consumers (what is good here, what is bad) is simply necessary for the organization of the business.

[Brovkin] It is important, apparently, and correct to determine the range of questions, which may encompass the consumers' societies and the methods of work. Someone tossed up the idea of creating a consumers' society for discussion to friends, and many spoke up without any special confidence in it: The next initiative group is assembling, they say, and will go and check up on the stores? This is what happened. It is either taken in hand at the request of the trade, or they simply bribe it with scarce goods from under the counter. Here comes the end of the protection of the rights of the consumer. It would seem, without excluding participation in the solution of concrete conflicts, which arise among those standing on both sides of the counter, the societies will have to look more broadly at their tasks.

[Yarovikov] Of course. If the people actively engaged in public life only undertake to control, and especially start to command economic activity, taking replacing specialists, things may not improve, but rather get worse. I believe, it would be reasonable to begin with the creation, under the local Soviets, small groups of enterprising people who are capable of defending consumer interests. They could expose those problems which especially disturb the inhabitants of the region. These are the work routine of trade enterprises, the siting of stores, the regularity of their supply with goods, and the quality of products. With these groups, there could be cost accounting and, possibly, cooperative consultations: Legal consultations, specialized in the defense of the rights of consumers, information consultations—for people desiring to organize a production cooperative or to engage in an individual labor activity. The guarantee of success of consumers societies' work, evidently, lies in the fact that they would not be formalized at once in strict limits of precisely prescribed tasks, but would come from life.

The consumers' societies seem still more effective if they will have their own soviets in the oblasts, republics, and a central organ. Their representatives in the Soviets of People's Deputies of all levels could also pose problems of the appropriate scale. And in order to avoid dilettantism here, which, of course, neither trade, nor industry, nor the planning organs will tolerate, the councils of consumers, I am convinced, must have cost accounting laboratories for the study of the problems of the commodity market, and the central organ—an extra-departmental scientific-practical center. At present, under the USSR Ministry of Trade, there exists the All-Union Scientific Research Institute for the Study of the Consumer Goods Demand of the Population and the State of Trade (VNIIKS). It is frequently criticized in the press for being little effective. And no one wants to understand that precisely the establishment of a trade department, thus, also the program of its work, whether it likes it or not, will always be departmental. Only the possibility of directly representing the interests of the consumer will allow the scientific-practical center to radically restructure the work.

[Brovkin] What, in your opinion, will it be able to do?

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[Yarovikov] To develop integrated assortment programs, aimed at satisfying the demands of various groups of the population for concrete types of goods. This is precisely where the other socialist countries, not mention the capitalist countries, go around us.

How does planning proceed in our country? From the conditions that have taken shape—the existing production capacities, their equipment and productivity. And so we pile up on the store counters both what is needed and, in great quantity, what no one buys. But, you see, there can also be another approach: To make known the demands of the various groups of the population both with respect to assortment, with respect to quality, and with respect to prices—of pensioners and young parents, workers and students, people whose income level is higher and lower than the average. The methods of such estimates are known from marketing. The new data will show which things are needed, and which are not, which articles in general will still have to be designed: Let us say, furniture for the young family, cheap and attractive, which in time the family will replace with prestige furniture. Then this picture of real demand must be superimposed on the production capacities, correspondingly attaining their renewal, reconstruction and development. Such recommendations, composed without departmental cunning, would help the planning organs and would be bought by the enterprises and councils of cooperators.

[Brovkin] We are holding a discussion about the protection of the rights of consumers. But from the legal point of view, only one of them is stated—the right to the exchange of a poor-quality product—in the Fundamentals of Civil Legislation of the Union of Soviet Socialist Republics. Article 41. And even this right is cut off by departmental rules of trade, which are not at all "a shield" for consumers, but a "sword." PRAVDA has written about this more than once. The last publication, "The Ministers, the Ministers Argue. . ." is in the issue for 6 July. So how to protect what only soars in the air? In laying the foundations for the rule-of-law state, which was discussed at the 19th Party Conference, it seems, we must formulate precisely the rights of people in the sphere of distribution, we need a USSR Law on Consumer Rights.

[Yarovikov] Yes, such a law is necessary. It would provide a legal basis for the solution of the developing conflict situations. Without such a document, it is difficult to pose the question about the compensation of damage which is inflicted on the consumer, when they palmed off defective output on him. The law, evidently, must formulate the responsibility of the workers employed in trade in cases of fraud of the consumer and the concealment, from him, of goods available for sale, false advertising of products.

I would like for it to obligate the industrial enterprises and trade to supply the population regularly with goods

of sufficient assortment. Then one could make the irresponsible administrators responsible for the shortage in the trade of tooth-brushes, and even bread, soap, and matches, and for the washing out of cheap goods from the assortment.

The law on the rights of the consumer, apparently, will also determine the forms of participation of the public in the distribution processes. You see, even now parents' committees are fighting to arrange for normal food for their children in school, and to no purpose. They do not have the rights to hold anyone strictly responsible. That is how feeble any public organizations prove to be if they will work without support of the law.

* * *

Of the thousands of letters which PRAVDA receives daily, a significant part deals with the grievances of consumers. We are asking for the protection of our rights!—is their main thesis. In this discussion, we have tried to discuss new levers of public influence on the development of the commodity market, measures that are more effective than the ones existing today. We hope, the readers of the newspaper will continue the discussion. The nerve of this discussion goes through the most vital concerns of people.

Official Discusses New Benefits in State Insurance

18270008 Moscow ARGUMENTY I FAKTY in Russian No 41, 8-14 Oct 88 pp 2-3

[Interview by S. Yefimov with V.V. Shakhov, deputy Minister of Finance of the USSR, Chairman of the Board of USSR State Insurance: "Guaranteed Risk"]

[Text] Gosstrakh [State Insurance] ads can be seen on virtually every street, but services do not always justify people's hopes and expectations. Specialists claim that they compare unfavorably with similar foreign organizations. Is Gosstrakh restructuring, and in what ways? Our correspondent's questions were answered by V. V. Shakhov, deputy Minister of Finance of the USSR, Chairman of the Board of USSR State Insurance.

[Shakhov] Until recently an administrative-command style prevailed in Gosstrakh, the prime objective having been to do anything to sign a contract and get the customer's money. Too much emphasis was placed on using insurance as a "saving" vehicle rather than on various services offering accident coverage. Insurance payments under Gosstrakh policies were relegated to secondary, if not lower, status. Moreover, the payments themselves—essentially material help to a person stricken by misfortune—were accompanied by a bureaucratic ritual of collecting various supporting papers, testimonials and expert conclusions confirming the fact

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and circumstances of the "insurable event." That had been the case. But the radical economic reform has forced us to take a new look at insured parties. We have to work to get their rubles.

[Yefimov] Why must you work for the insured's rubles if they are flowing to Gosstrakh anyway? Incidentally, what are Gosstrakh's revenues and expenses?

[Shakhov] Annual revenues from insurance premiums are 17 billion rubles. Payments amount to 7 billion rubles to individuals and around 6 billion to collective and state farms.

[Yefimov] Where does the balance go?

[Shakhov] To form a reserve (in case current revenues are insufficient for payments), cover insurance selling expenses, maintain an incentive fund for insurance agents and other personnel, and contributions to the state budget. But with the introduction of full cost-accounting [khozraschet] in Gosstrakh we shall be seeking more moneys from individuals, cooperatives, factories and construction projects so as to put them to work for the benefit of the insurance industry and society as a whole.

But the main thing is to make the insured's interests Gosstrakh's prime concern, eliminate contrived regulations, and remove all obstacles to insurance payments. Then we won't be hearing bitter reproaches to the effect that all Gosstrakh does is collect payments without offering anything in return.

[Yefimov] What do you intend to do in response to justified reproaches and make insurance services useful and even necessary?

[Shakhov] Along with traditional types of insurance, which are well known, we are offering new ones: supplemental retirement insurance for workers, employees and kolkhoz farmers, insurance of collectibles, antiques, jewelry, small farm machinery.

We intend to offer priority repairs of insured cars with the help of appropriate cooperatives and to organize the sale of some restored spare parts.

In the very nearest future we hope to offer urban residents apartment repair insurance and rural residents repairs of entire personal small holdings.

[Yefimov] People often refuse insurance coverage because, they claim, premiums are too high. In fact, insurance coverage is frequently not very attractive.

[Shakhov] I think that the claim that insurance premiums are too high is spurious. It all depends on what one wants. After all, one can ask for a certain coverage, and the smaller it is the smaller the premiums.

On the other hand, it is true that our state insurance system fails to offer a variety of insurance benefits. For example, incentives for safe driving, or for the careful owner who never had a fire over many years of paying insurance premiums. Apparently, war and labor veterans, large families, unmarried mothers, and internationalist soldiers [Afghanistan veterans] should be offered substantial payment benefits on insurance policies. Business is business, but the social aspect, the availability of insurance for one and all is of primary concern.

[Yefimov] I would think that enterprises could undertake to cover a portion of their employees' insurance payments. Also, Gosstrakh's khozraschet revenues should be derived not only from the difference between insurance premiums and payments for insured losses. Gosstrakh could derive additional revenues from investing in, say, auto services, hotels or innovative enterprises. This is an economic device extensively employed by foreign insurance companies.

[Shakhov] True enough, many bold ideas—if only they were implemented—would pay off substantially. Actually, though, it isn't so simple. Unfortunately, we cannot decide on our own how, and in what ways, we can make the money which the state needs so much. There are too many regulatory shackles. What is needed is a law on state personal and property insurance. Also, the Law on the State Socialist Enterprise should be expanded to include Gosstrakh, and more opportunities should be given to enter the international insurance market. We could learn quite a few business ideas from the West.

[Yefimov] It also wouldn't be a bad idea to learn from them insurance culture and how to provide quality service.

[Shakhov] Unfortunately, that is so, but at present the material technical base of our insurance service is in a catastrophic state. About two-thirds of our claims verification offices are located in unsuitable, derelict or basement premises.

There is a shortage of computer hardware and transport.

[Yefimov] But with the introduction of khozraschet Gosstrakh should be able to improve its material status.

[Shakhov] Let us hope.

[Yefimov] You mentioned that it would be a good idea to gain access to external markets. How would this benefit Gosstrakh?

[Shakhov] To date this is a right enjoyed solely by the Ingosstrakh joint-stock insurance company of the USSR Ministry of Finance. Gosstrakh handles insurance only inside the country. But such narrow specialization is no longer justified. Options include the setting up of joint insurance agencies with foreign insurance companies. This would make it possible for us to earn hard currency

to insure various projects in the USSR which are being built with the cooperation of foreign companies, to offer our own types of insurance, and to eliminate the monopoly, which has become a brake on the insurance business.

[Yefimov] Speaking of the harm of monopolies, it would be only fair if Gosstrakh, too, ceased being the "tsar" in the insurance system. It would be only natural to set up insurance cooperatives. What do you think?

[Shakhov] Setting up cooperative agencies would indeed mean a certain demonopolization of insurance services. Conditions would appear for healthy socialist competition. Incidentally, in Moscow an insurance cooperative, "Kaissa," has already been organized. But we are not afraid of competition on the part of cooperatives. On the contrary, we are prepared to cooperate on a long-term and mutually advantageous basis.

[Yefimov] And that's it?

[Shakhov] With the introduction of khozraschet in the economy enterprises become fully responsible for the profitability of their operations, while the state is in no way liable for their performance. We are thinking of

offering industrial, transportation, construction and communications enterprises insurance for accidental losses of fixed and liquid assets. Take, for example, an explosion at a mine, a railroad accident, a leaking water dam, all of which can entail huge material losses. By establishing a centralized insurance fund in Gosstrakh we could free state budget resources, which otherwise would be spent on compensating for such losses, on financing major social tasks.

Editors' Commentary

Insurance companies all over the world are risk enterprises. But given a vast number of insurance services covering the most diverse circumstances they rarely "go under" and usually earn stable profits. As a rule, insurance companies are not directly subordinate to their countries' ministries of finance. But Gosstrakh's subordination to the USSR Ministry of Finance dooms it to paying the latter a huge "tithe" instead of reinvesting to offer people scores of necessary services. After all, Gosstrakh handles 17 billion rubles, which could be increased many times over by increasing the range of accident coverage.

GOODS PRODUCTION, DISTRIBUTION

Saleable Items Are Basis for Profitable Trade
18270013a Moscow SOVETSKAYA TORGOVLYA in Russian No 9, Sep 88 pp 5-9

[Article by Ya. Orlov, professor, department head of the ZIST: "Interest and Responsibility"]

[Text] The 19th All-Union Conference of the CPSU is a landmark in the matter of restructuring. The decisions developed and adopted by the conference are of immense significance for the country's destiny and are an indispensable part of the changes and at the same time a powerful accelerator.

The conference emphasized the need to resolutely continue and deepen the radical economic reform. Prerequisites for it were created by the decisions of the June (1987) Plenum of the Party Central Committee and the USSR Laws on the State Enterprise and on Cooperation. The solution to the country's food problem, saturation of the market with other goods, and radical improvement of trade are sore spots in the economy.

The process of revolutionary renewal is penetrating more and more deeply into a decisive sphere of life—the economy. It is gradually gathering force. Last year for the first time all of the increase in national income was obtained as a result of increasing labor productivity. The real incomes of the workers have started to grow again: during 2 years of the current five-year plan the per capita increase was 4.6 percent.

The tendency toward improvement of the socioeconomic situation has been developing this year as well. The national income is increasing more rapidly than was envisioned by the plan with an absolute reduction of the number of people employed in material production. For the first time in many years the assignment for commodity turnover for 6 months has been fulfilled.

But still the changes that have been noted here do not remove the major problem—the supply of goods and services continues to lag behind the growth of the buying capability of the population.

Somehow it has become customary when speaking about the social sphere to mention mainly housing, public health, consumer services and...to forget about trade. It is as though it is somewhere either completely outside the realm or some independent, separate category that only touches upon the social sphere. Yet if one imagines all the constituent parts of this sphere as a kind of social orchestra, trade could perhaps without any exaggeration be assigned the role of first violin.

In the annual operation of buying and selling it is not difficult to note an act of the greatest social importance. Trade serves man to satisfy his needs for material goods.

Not a single other branch of the national economy exerts such an influence on his daily life, mood, ability to work, and even health as trade does.

Trade is frequently called a barometer of economic development. To a certain degree this is true for there cannot be good trade with a poor economy. But one must not forget, however, that a barometer only predicts the weather and in no way influences it. But trade not only registers, as it were, the cyclones and anti-cyclones in the store and, consequently, in the economy as well, but also it to a considerable degree "makes" the weather in it or in any case influences it.

Indeed in trade we find the point of closure of the conveyor of all branches of the national economy working for man. It is precisely in the store that it finally becomes clear how well or poorly his needs for goods are satisfied. It is here as in a mirror that we see reflected the successes and shortcomings of production, the difficulties and mistakes, the merits and vices of the system of planning and distribution, the pluses and minuses of evaluation indicators, in other words, everything that lies both outside the sphere of trade and also within it. It is here, within the store, that the consumer uses his ruble to make the fairest, the most realistic evaluation of the commodity-producing conveyor that serves his needs. And regardless of how cleverly the producer may manipulate statistical reports, regardless of how he may hide behind the figures, he is not defeating anyone but himself. His work is in vain and his achievements are illusory if the final product of this labor is not sold out, if it remains on the shelves of the stores or gathers dust in the warehouses.

A paradoxical situation has been created in which producing a commodity takes an average of half as much time as it does to sell it. And this is under our condition of lightning-quick reaction of the buyer who is capable within a couple of hours of emptying the shelves of a store but only under the condition that they are filled with good and necessary things. Otherwise the item lies unused and the "price" of each day the commodity is in circulation under the conditions of modern production increases without restraint and now is reaching almost a billion rubles which has a fatal effect. Both on the commodity and on trade itself.

The population's consumption of material goods and services is increasing. The absolute average annual increase in consumption during 1985-1987 amounted to 18 billion rubles as compared to 11 billion rubles during the preceding 3 years.

How can it be that statistics are reporting an increase in consumption but there is a shortage of a very large number of items? Why? Because monetary incomes proceeded along one curve while the increase in commodity turnover proceeded along another. Consumption increased, but the effective demand increased more rapidly.

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During the three preceding five-year plans the plans for growth of monetary incomes of the population were practically fulfilled while the delivery of goods to the market turned out to be less than the plan by many tens of billions of rubles. As a result there was accelerated accumulation of unsold monetary funds and the problem of balancing supply and demand was aggravated. According to data of the USSR State Committee for Statistics, the unsatisfied demand for industrial consumer goods at the present time is estimated at more than 30 billion rubles, and in the sphere of services rendered by state enterprises—approximately 15 billion rubles.

The consequences of the situation that developed in the past continue to be strongly felt even today. As a result of the reduction of the sale of alcoholic beverages during the past 3 years the state has failed to collect more than 37 billion rubles. Moreover, in 1987 as compared to 1985 revenues from the sale of imported goods whose purchases were limited because of the shortage of foreign currency decreased by 9 billion rubles.

The insurance of balance between the effective demand of the population and the resources of goods and services is becoming an increasingly insistent need on the scale not only of the country, but in each union and autonomous republic, kray and oblast.

The reform and the new economic mechanism are directed toward changing the existing relationship between supply and demand and strengthening the position of the consumer. Under these conditions the economic nature of the market comes into play: the producers, in order to simply exist, must look for and find buyers for their products. Today, to be sure, the conditions for management are already different, but the policies under which both industry and trade must manage are still frequently old. And they do not make it possible to act and operate as is required both by common sense and by the existing market conditions.

The general lack of balance between supply and demand did not arise of its own accord. There are specific people who created it. And they are primarily those who are working for the warehouse, whose products are not sold. In 1987 alone industry produced 12 billion rubles' worth of illegal industrial products. They went basically to augment frozen supplies. And they failed to manufacture almost an equal amount of goods that the consumers critically needed.

For example, in 1987 enterprises of the USSR Ministry of Light Industry fulfilled the assignment for producing consumer goods in retail prices by 101 percent. They produced a billion rubles' more products but at the same time the plan in physical indicators was not fulfilled for almost half of the 39 most important kinds of goods taken into account in statistical reports. The rate also

dropped for many kinds of items. Among them were linen fabrics, children's coats and jackets, dresses, vests made of cotton and mixed fabric, and also tree decorations and toys.

As usual, there are demands that the production collectives and also the ministries increase the output primarily of those products that produce large volumes in rubles and not the ones the consumers want. In practice production associations and enterprises are reoriented from the production of goods in the ordered assortment to the fulfillment of value indicators. This is one side. On the other hand, this makes it possible to create the appearance of well-being in the work of the branch.

This is an insidious trap—to pursue gross output, adhering to the principle of "do less and receive more." Thus the enterprises artificially create a shortage in a situation where it is much easier to dump products that are not of a very high quality, that are not very diverse, and that are not completely in fashion.

This is how it looks in life. The store and the factory agree on the delivery of goods in the group assortment. It seems that the term itself is simply a screen in order to conceal the real failure to deliver the items the people need. Indeed, if one compares the concrete orders from trade with the real deliveries, for example, of clothing and footwear, it turns out that the stores fail to receive 15 percent of the products in the models, fashions and designs they have ordered, and taking into account the required sizes, age groups, and weight groups—one-third of the goods. The USSR Ministry of Light Industry (and not only it) could report much more correctly by saying that it fulfilled deliveries by 70-80 percent, and not report fulfillment of the plans.

Behind the externally successful fulfillment of agreements lie numerous cases of their violation by many enterprises. The Kiev Knitwear Association imeni Roza Lyuksemburg in 1987 after the report period had already ended made more than 100 changes costing 1.5 million rubles in the assortment that was delivered. The Kharkov Knitwear Association produced 600,000 rubles' worth of unnecessary goods, and the Voroshilovgrad Sewing Association—17.5 million rubles' worth. Everything necessary for producing unmarketable goods is there—the working hands, the materials, the equipment. Moreover both last year and this enterprises of the UkrSSR Ministry of Light Industry have refused to conclude agreements for the delivery of significant sums of truly necessary goods. Here they traditionally blame the lack of capacities, raw materials and workers. The plan for producing leather footwear in value indicators is overfulfilled but in physical indicators it is not fulfilled (they failed to sell more than 1.5 million pairs of women's and children's footwear alone).

At many enterprises the production of items in rubles is increasing by 5-8 percent, and in units or pairs—it is decreasing.

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How does one explain this? Up to this point we have not solved the problem of intercoordinating the calculation indicator of the production plan in value terms established for light industry by the Gosplan and the plans of the enterprises that are not assigned this indicator. As a result, this is the third year when the manufacturer has not presented for sale at trade fairs billions of rubles' worth of fabrics, clothing and footwear needed by the population which are given to trade organizations to cover the plan for retail commodity turnover.

Hence the hint: make industry produce goods with the index N, especially fashionable goods, at contractual prices, and so forth. But still there is also a hidden price increase which does not contribute to satisfying the essential consumer demands. And it would be a social mistake to rely only on expensive items, although in certain volumes they are undoubtedly necessary (if, of course, their high price corresponds to their consumer properties and quality).

The disparity between retail prices and consumer properties of goods affects the standard of living. Higher prices with the former quality or poorer quality with the same price—these are common phenomena. But even an increase in average retail prices that is backed up by improvement of consumer properties (quality) of goods can be thrust upon the consumer if there are no similar but less expensive goods for sale. According to data from certain investigations, approximately three-fourths of the purchases of goods for cultural and domestic purposes and household use are forced.¹ The growth of retail prices related to these purchases certainly does not strengthen and even weakens the buying power of the ruble and is inflationary in nature.

The desire to increase prices through producing almost any products with the index N is typical of a number of textile enterprises. But fabrics are frequently included in the improved category subjectively and prices are increased because of changes in the color of the pattern, stripes or prints that the buyer cannot understand. Thus not only the goods are discredited, but also the very concept of "innovation." The same thing pertains to a number of goods with the index OM (especially fashionable), OP (experimental batch), and D (children's).

It is not without reason that specialists are suggesting eliminating the index N, which has not justified itself, and leaving two prices: price list and contractual. Let the latter be higher if the commodity is worth it and if people buy it: if the demand has dropped the price gradually decreases to the list price level.

Granting the consumer the right to select the commodity is tantamount to giving the people control over the activity of planning agencies and the quality of management of the national economy. Tendencies toward state bureaucratic control and ideas of command administration of the economy essentially oppose trade. The market is constantly generating new demands which are

difficult to take into account at the time that various kinds of directives are being drawn up. It undermines the real power of the administrators for it leaves the last word to the consumer.

The 27th CPSU Congress and the June (1987) Plenum of the CPSU Central Committee came to a complete reevaluation of the position of commodity-monetary relations in the economy. Today it is formed by new principles and ties, new production relations. It must be emphasized, however, that there is still much to do for the effective functioning of the new economic mechanism.

We have not developed a procedure for making up for losses from erroneous actions on the part of the planners, the lack of provision of resources for the enterprises, or the irresponsibility and impunity of economic management agencies and also the Gossnab system. A no less important task is to make the branch ministries representatives of the interests of the consumers and not of the producers.

For 1988 and subsequent years of the five-year plan the plan for commodity turnover has been established as a state order. According to the USSR Law on the State Enterprise (Association) this means that balance between commodity turnover and commodity resources is an indispensable and major condition. So far it is not being achieved. Therefore it makes sense to define commodity turnover as a control figure for trade. This will make it possible to fully meet the requirements of the aforementioned law concerning the changeover to economic methods of management and expansion of the rights of labor collectives to form the plan as well as increase its real responsibility for its fulfillment. There can be no fear that the state budget will sustain losses since accounts between trade and the budget are arranged on the basis of a normative that is determined in keeping with the control figures for commodity turnover and the actual incomes, on the one hand, and distribution, on the other.

The terrible problem for the economy is the poor quality of many, many consumer goods.

What can be done? One must admit that the appeals one hears in stagnant years "*find the specific guilty party*" or to "*lower the boom on each specific person responsible for defective work*" are just as naive as the slogans "*worker conscience best OTK*." *It is extremely doubtful that success can be gained merely from courage, a love of work, and enthusiasm, and that mistakes and failures can be ascribed only to inadequate conscientiousness, a failure to understand the tasks, backwardness and other subjective factors.*

It is necessary in fact, relying on scientific and technical progress, to improve the quality of goods, using also economic levers for influencing negligent workers (particularly bringing the suppliers to account for the quality after the goods have been received).

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Goods that lie around in the warehouses are frozen funds. With an average annual profit norm for the national economy of 20 percent, each ruble of commodity supplies stored for a year produces a loss in the amount of 20 kopecks.

The main reason for the unjustified growth of supplies is generally known: the lack of correspondence of the assortment and quality of many goods to the demands of the population. The return of defective items accounts for no small amount of the annual commodity turnover of nonfood stores. Just the sum of defective goods returned to the suppliers amounts to billions of rubles.

Trade has considerable possibilities of not accepting from industrial enterprises poor quality goods that are not in demand. These possibilities have been expanded and reinforced by the decree of the CPSU Central Committee and the USSR Council of Ministers, "On Improving Planning, Economic Incentives, and Management in State Trade and Consumers Cooperation."

The order from the trade organization taking into account the results of wholesale trade fairs is becoming the basis for the work of industry. Enterprises are forbidden to include in the production plans goods for which there are not trade orders or for which delivery agreements have not been concluded. Trade has been given the right to refuse unordered goods or to accept them on a commission basis and sell them at contractual prices. But this right is being poorly utilized.

Production and trade are essentially the abscissa and ordinate of the economic curve that is called the economy. These partners must have equal rights, share the joys and sorrows in a friendly way, not opposed and stand in the way of each other's interest, and be jointly concerned about the consumer.

One hears the opinion (including in the central press) the essence of which consists in that trade can receive its profit even if the majority of salesmen stand behind empty counters with their hands folded for the majority of the year. The fact is that industry's failure to fulfill contractual commitments to trade is paid for in fines which ultimately become profit for trade. They say that this is what happened last year: the plan for commodity turnover was not fulfilled—the deficit was greater than ever before, but with respect to profit, that is, money, it was a complete success. Only one thing is true in this assertion: in 1987 the plan for commodity turnover was, as they say, a real flop: the amount of commodity sold was 12.6 billion rubles less than called for in the plan. As we know, goods do not grow behind the counter, they "grow" somewhere else—in the plants and factories. And one can sell only that which has been manufactured and has entered the trade network. The aforementioned figure designates basically the amount of underdelivery of goods to the market. And if we were to be quite

precise, the difference between the initial planning figure for commodity supply for retail commodity turnover and the actual figure would be even greater—17 billion rubles.

How does one fight against regular failures to deliver products? With appeals? With administrative scoldings? With fines which are paid mainly by reducing the money coming into the budget which just gives encouragement to negligent managers? All of these have been tried, but without appreciable results. The restructuring of the economic mechanism is intended to increase the responsibility through the ruble and to teach people not to fail to fulfill contractual commitments.

To this end, the amounts of the sanctions and the policy for their utilization were changed. In principle the fine should reimburse the injured party to the delivery agreement not only for damage cost but also for advantage lost because of failure to fulfill the commitment. The entire world recognizes this norm.

Of course the party paying the fine suffers, but sometimes not very much, covering losses with high incomes from the production of goods with the mark "N," especially fashionable goods, savings, and so forth. Enterprises that are planned to operate at a loss are kept under the ministry's umbrella. And only free selection of suppliers and consumers under the conditions of competition can provide for high responsibility and a high level of dependency in contractual relations. And only under these conditions does the requirement of cost accounting to live only at one's own expense assume quite distinct outlines.

And now about the fact that trade survives on fines, lives well on them. This is an old "song," which has nothing in common with life but new words have appeared in it—mainly false ones. It is true that last year the branch fulfilled the plan for profit although in other years it did not fulfill it mainly because of the fact that the trade network received less goods than was planned and therefore income from their sale did not reach the earmarked goal.

An analysis of the results of the work of trade organizations in 1987 shows the positive influence of the new management mechanism on improving the financial indicators and increasing the motivation of the collectives to achieve good final results of their activity. Previously, before the reform, there was no special need to economize on expenditures in the branch: cost accounting was extremely convergent. The workers received their earnings in any case. They were included in a special item of circulation expenditures and were planned beforehand. Now this is a proportion, a normative in the cost-accounting income, and it must be earned. These are the variants: income from the sale of goods and savings on expenditures and outlays. Here it is necessary to keep track and to save, and the first changes are in evidence. In 1981 they received 179 million rubles

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more in income than indicated by the planned commitments, and note that 159 million rubles resulted from economizing on expenditures. One can applaud but there are also other savings such as interest on credit (fewer goods came in), lower planned expenditures on transportation (again because of fewer goods). Actually life is filled with contradictions. Of course it is necessary to say (there are still many cases of losses and inefficiency), but it must be reasonable, not to the detriment of the culture or quality of trade service.

Income increased during the year, and here it should be emphasized that it was without the balance of fines, as a result of reducing circulation outlays, that is, as a result of more efficient management. The balance of fines for last year was indeed a record in favor of the branch (the failure to deliver products is reaching astronomic proportions). In the reports this figure is indicated as imposed fines. But this certainly does not mean that trade receives or will receive this entire sum (sometimes the supplier has no money, sometimes his turn for payment has not yet come, and sometimes it has passed him by).

During the first quarter of 1988 throughout the system of the USSR Ministry of Trade income was received in an amount of 3.1 billion rubles or 6.8 percent more than envisioned in the planning commitments. The number of enterprises with sufficient internal circulating capital decreased by a factor of more than 10 and the shortage itself decreased by a factor of almost 8.

Who receives the fines? Mainly the wholesale workers. In cost accounting income the proportion of the fine balance in the retail sector comprises only a little more than 3 percent. Not very much at all. And therefore there is no justification for seriously asserting that there are no problems in paying for the labor of retail trade workers, that fines cover the shortage of internal funds. Because of failures to deliver goods enterprises of the system of the USSR Ministry of Trade alone failed to receive income in an amount of 330 million rubles. As concerns fines through which trade is supposed to catch up, the amounts of fines actually received certainly did not make it possible to compensate for all of these losses.

Under the conditions of restructuring greater demands were placed for the fulfillment of commitments under the delivery agreement. The sums of claims and suits have actually increased, but up to one-third of the sanctions submitted against the suppliers go unsatisfied. It must be added to this that even today we have not eliminated cases of pardoning negligent managers and releasing them from the payment of fines, which contradicts the letter and spirit of the reform and the requirements of the Law on the State Enterprise. Approximately four-sixths of the sanctions are for failures to deliver goods and the rest are for their poor quality. Trade's losses here are immense and no fines can cover them. And by virtue of their very essence the stores need not fines, which they cannot place on the shelves, but goods.

Thus we are speaking not about increasing the demandingness of trade—the basis of the business partnership—as before, fines are far from always submitted for payment and some trade workers to this day profess the old philosophy—"bad peace is better than good arguing." And for this they punish both themselves and the consumers. The lack of desire to argue with the suppliers, even when there is a shortage of many goods, cannot be justified but it can be understood. The society is interested in having the demands of the population be satisfied more fully, and the economic means would contribute to this. The fine is an important lever for this kind of control.

Yet the work practice of enterprises under the new conditions of management has revealed a number of problems in the mechanism for economic responsibility. Among them is the very approach to determining the amount of the sanctions (the fine cannot be advantageous to anyone), the effectiveness of the utilization of the fine in the interests of the society, and so forth.

Finally, can the salesmen stand for very long behind empty counters and still receive wages and bonuses? No, they cannot. As in other branches of the economy, wages in trade must be earned, they are actually payment for specific work for a specific result—the sale of a commodity. Not a single kopeck from the "fine purse" goes into the wage fund. The labor of all categories of workers of the store, dining room and base are paid and incentives are given from this source. In order, God forbid, for trade workers not to receive high wages, a so-called limit has been established—the normative of the ratio between the growth rates of income and commodity turnover. The latter should increase at more rapid rates than the wage fund does. This means that not even all the earned money from the wage fund can be spent for these purposes (the difference is either reserved for better times or is transferred into the fund for production and social development).

The "fine" money is transferred into the fund for production and social development of the collective and from there it cannot get into the wage fund. So it is necessary to work behind the counter, sell the goods and then there are earnings. The solution? Compensation for damage caused through the violation of contractual commitments. The violator makes reimbursement to the party suffering the damage for all the income that was not received because of the failure to make the delivery. This is a severe measure but we cannot do without it when arranging reliable supply, and without this cost accounting becomes a fiction.

No significant changes have taken place in the relations between trade and industry.

It is not that the new policy has failed to take something into account (although this also happens), but it is a matter of the real situation on the market, which leaves its own marks. Above all we have in mind the shortage of

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goods which is caused by the fact that their supply lags behind the constantly growing demand and places industrial enterprises in a more favorable position than that of trade. The very mechanism for forming commodity resources when there is a shortage of them, when the funds are sent down "from above" contributes to this.

Under these conditions industry can impose its own assortment policy on trade, one which frequently differs greatly from the demands of the population. The influence of the consumer who motivates a change in the assortment to improve the quality of the goods that are produced is still very weak: in essence, today there is still no guarantee of sales, and the agreements frequently reflect simply that which the managed manufacturer has thought up. Therefore real prerequisites for eliminating the dictatorship of the supplier are created only if the market is saturated.

The delivery agreement is intended to be in the full sense of the word the basic instrument that determines the relations between the suppliers and the consumers. Production plans can and should be established only on the basis of agreements that have been concluded. Their authority is increasing in more than just the legal sense. Socioeconomic programs of the party and government for a fuller satisfaction of the needs of the Soviet people for material and also spiritual goods should be implemented through the agreement. The restructuring of the economy requires the radical restructuring of the work for concluding agreements and checking on their fulfillment. This is especially important for agreements concluded at trade fairs.

Trade and industry should stop protecting departmental interests; they should be reoriented toward businesslike operational cooperation for the good of the population and the society. The interest and responsibility of the store and factory in observing contractual commitments are increasing sharply. It has long been time to curtail mutual amnesty which harms the cause of supplying the population. On the contrary, requirements for increasing the role of agreements and control over their fulfillment should be strengthened. There is an immediate need to revise all the normative documentation regulating the relations between the parties concerning deliveries and to develop new provisions on the delivery of goods.

We are speaking about a question of immense socioeconomic significance. The main sign of a vigorous, flourishing economy is the lack of a deficit and the saturation of the market with good commodities. And, conversely, poor quality of work and trade and a shortage of these commodities is the most dangerous kind of waste of public labor and in general of all of our national property.

Footnotes

I. ARGUMENTY I FAKTY, No 44, 1987, p 6.

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FUELS

Methodology for Exploitation of East Siberia Discussed

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[Interview with Andrey Alekseevich Trofimuk, Academician, by Valeriy Ivanitskiy: "How Can There Be a River of Oil: A.A. Trofimuk Thinks About A Strategy for Oil Development in East Siberia"]

[Text] [V. Ivanitskiy] Andrey Alekseevich, for many years now you have been talking about East Siberia's great prospects as an oil and gas province. I will cite only one publication: "Here we expect concentrations of oil and gas at least equal to those in the West Siberian Lowlands." This is from the newspaper *Za Nauka v Sibiri* in 1969. Since then there have been short articles in various publications making it clear that your predictions were true. In speaking at a meeting between M. S. Gorbachev and scientists during his visit to Krasnoyarsk Kray, you proposed the creation of large facilities for extracting oil and gas in East Siberia. What are the essentials of this proposal? How can the underground wealth here be effectively used?

Can One Get Along Without "A Heroic Storm"?

[A. Trofimuk] There has still not been a substantial discussion about oil and gas in East Siberia. Back in the late 1960's the presence of large amounts of hydrocarbons in this area was scientifically proven. The promising areas were almost twice the size of similar areas in West Siberia. They have an extremely great potential for oil and gas. To give you an idea of the true scale of reserves I will cite a few examples.

The Yurubcheno-Takhomskoye Field is located around the middle stretches of the Podkamennaya Tunguska in Krasnoyarsk Kray. According to specialists it contains several hundred million tons of oil and gigantic reserves of gas. The much needed gas cannot be extracted until we have extracted all the oil. The gas cap acts like a piston, pressing on the oil reservoir, and substantially increasing its recovery. This situation shows that it is necessary to more quickly begin developing the field. The large Sobinskoye field, primarily gas, has been discovered around the upper reaches of this river. According to our forecasts, the land under the so-called Preobrazhenskoye Uplift, in Irkutsk Oblast, contains several billion tons of oil alone. I could cite several dozen smaller oil and gas fields. This province's geographic location makes it even more valuable. Think about it. This oil and gas is in a territory rich in other mineral resources and which urgently needs refined hydrocarbons.

It is therefore completely normal to think about very quickly building facilities in East Siberia for extracting and processing these hydrocarbons. Then we could avoid the annual winter energy "mini-crises" in this territory,

especially in Yakutia. After all, it is abnormal where, having our own "storehouse" of oil and gas, we have to haul in fuel by helicopters. In the winter here a liter of solar oil costs a ruble or more. The construction of facilities here would, in time, provide for growing demand for oil, gas and their byproducts throughout all of East Siberia and the Far East. Also, the geographic location of this oil and gas belt is valuable because it makes it possible to solve a task in the strategic plan—move the center for petroleum extraction and processing almost 2,000 kilometers east. From all perspectives it is important to create another self-sufficient territory with enough oil and gas. This was taken into account in formulating the concepts for building large oil and gas extraction facilities in East Siberia. This March it was examined at a meeting of the USSR Council of Ministers' Buro on the Fuel and Energy Complex, with participation by USSR Gosplan and the Ministries of Geology and the Oil and Gas Industry. It concluded that it is premature and wasteful to use East Siberian oil, it will be the most expensive in the country. This is the method used for determining the high cost of extraction: Proposed capital investments for developing a deposit are divided by proven oil reserves at the beginning of 1988. A billion divided by 10 million gives a unit cost of 100 rubles for each additional ton of oil. However, this is by no means a scientific forecast. If one diverges from it only partially the cost for increased extraction will decline several fold.

However, this is not convenient to those who are not concerned about the development of the USSR oil industry and substantial improvements in the location of extraction and processing facilities. After discovering the Yurubcheno-Takhomskoye oil and gas giant, the USSR Ministry of Geology will annually increase its proven reserves by tens of millions of tons. This would easily assure increases in reserves over several years. Only by the end of this or the beginning of the next century will the USSR Council of Ministers' Commission on Reserves get a true idea of field size. It will take another 3-5 years to defend reserves at these agencies. Only after these procedures will the discovered millions be transferred to the Ministry of the Petroleum Industry. In its turn, this ministry will spend several years planning and then will develop the giant.

Today it is more advantageous for ministries to work on the smaller fields in West Siberia.

The indicator system makes life easy for them. One such indicator is the number of meters drilled, a gross measure. I remember when, a few years ago, when the well known F. Salman and his collective overfulfilled the reserve growth plan but did not drill several thousand meters. It was only with help from party organs that they succeeded in getting their bonuses. However, nobody drew any conclusions from this.

Of course, it is easier to drill in upper strata. "Metering" seriously hinders a territory's comprehensive development. Every oil and gas bearing province has several

"floors." For example, in West Siberia there are four. It is now mainly the upper one which is being explored and developed. We will handle this one and move on to the next. There is a logic to this, but it is only formal and far from scientific. Large extraction volumes require the development of large fields. In West Siberia these are: Samotlor, Fedorovka, Sovetskoye. They gave a big impetus to extraction. Now the giants are running low. It is time to hook up the gigantic deposits in other "floors." But they have not yet been discovered and explored. We are faced with "metering." In spite of the complicated situation, the ministries are living well. They only have to drill and report it in order to obtain money and material resources.

Today we are making stricter demands and are attempting to get away from worn out principles. This also applies to oil extraction. It is time to ask if its growth at increased costs is wasteful. This is now the situation in West Siberia. Field costs are increasing all the time. It is necessary to set up a system of criteria and stimuli to provide incentives for extracting oil and gas without increasing its cost. Then Minneftprom [Ministry of the Petroleum Industry], Mingazprom [Ministry of the Gas Industry] and Mingeo [Ministry of Geology] will finally start counting money. Every well will be working at full capacity, there will be no idle machinery and excess pipe. The ministries and Gosplan will stop shaking down Uralmash for more drilling rigs. Then agencies will want to go to East Siberia. The development of highly productive wells in its deposits will reduce oil and gas production costs throughout the sector. There is now a very favorable situation: for almost the first time in 70 years it is possible for us to intelligently and economically develop a new oil region, making it an example with regard to production standards and social infrastructure. If we begin now we will have time. If we delay we will be forced to rush things and go on "a heroic storm." I am for the skillful development of East Siberia. This would be appropriate to a civilized nation. It is very unfortunate that time and efforts have to be wasted on proving the obvious. I repeat, the skillful development of East Siberia will bring us only benefits. This was repeatedly mentioned by M. S. Gorbachev at meetings with workers on his trip to Krasnoyarsk Kray.

[V. Ivanitskiy] Unprecedented growth rates in extraction have been attained in West Siberia. Some of the oil and gas is exported. I understand that there are discussions about transforming the country from an exporter of crude oil into a supplier of products from its refining.

[A. Trofimuk] You formulate this thought quite delicately. I would not be so overscrupulous about this. It is a disgrace to peddle oil in this manner. The refining of oil into modern products increases its value by a factor of 10. By selling crude oil we send a sizable part of our incomes through the pipelines into the banks of other countries. Standards at our refineries are such that their products simply cannot be sold on world markets. We export almost one fourth of what we extract. I see the

answer in sharply accelerating the development of refining, in particular, by building, jointly with CEMA countries, enterprises for the modern, highly efficient and thorough processing of hydrocarbons. Nothing hinders the construction of such enterprises on mutually advantageous conditions with capitalist countries also.

Modern methods force us also to be especially economical with natural gas, which seems to be an inexpensive fuel. Without giving any special thought to it, a few years ago we would have sent gas from the Sobinskoye Field for use in Krasnoyarsk, making it possible to sharply improve air quality. However, today we cannot thoughtlessly burn natural gas which contains helium, a very valuable raw material. It is necessary to build a plant to separate helium from hydrocarbons. Although the demand for helium in our country is not yet very great, it is highly valued on the international market. It makes sense to store it in caverns made by nuclear explosions in solid rock. This would be economical.

A small drop in air temperatures during the winter disrupts energy supplies at oil and gas processing enterprises. Extraction is slow in frosty weather. In a word, it is necessary to build oil and gas storage facilities. Salt deposits are ideal for this. An explosion would create a ready facility. An easier path is possible: the temporary conservation of highly productive wells. We must see that we always utilize or add to commercial reserves. Until then, in critical situations we will be feverishly drilling in search of hydrocarbons, recklessly spending money in the process. Also, everywhere the slogans will ring out about labor watch and unprecedented feats of oil workers. We do not need resounding words and rarer, but genuine resounding deeds. It is far more preferable to put daily work on a scientific basis.

Of course, in order to quickly and relatively inexpensively begin to develop reserves in East Siberia it is necessary to provide this area with transportation, communications, energy and social infrastructure. The uncoordinated storm method for solving such problems raised construction and development costs for oil and gas extraction in West Siberia by approximately 20 percent and actually hindered development substantially. In the new region it is time to begin constructing oil and gas pipelines, railroads and other roads. It will be comparatively inexpensive to supply energy to the region. Existing electric power plants should be used and expanded and additional ones built. This is the complex of measures which I call a skilled approach to the new oil and gas province.

Unavoidable Costs Or Wasteful Outlays?

[V. Ivanitskiy] Andrey Alekseevich, this would really require huge sums: oil and gas pipelines, railroads, nuclear explosions, electric power plants. There is simply no money. No matter where you turn, everything requires huge sums—education, health care, machinery building, agriculture, housing...

[A. Trofimuk] Yes, money. Between this five-year plan and the end of the century the ministries have shown the need to spend 300 billion rubles on oil and gas in West Siberia. This is simply to maintain extraction at present levels. The state allocates this money, and not for just anything, but for oil and gas. Extraction rates can be maintained by other methods to get the maximum amounts out of the ground. I have already mentioned some. There are others. For example, hydraulic fracturing of formations is used in all countries. I will explain. A 100 millimeter (or better, 200 millimeter) diameter well is drilled. The drainage area is small. Using special devices the formation is fractured. This creates fissures extending hundreds of meters from the well, increasing its drainage potential several fold. The Americans and the English find this indispensable, especially in offshore drilling, where wells are 10 times more expensive than on dry land. We too once used hydrofracturing, before, during and after the war. But no longer, we even threw away the equipment.

In addition to hydrofracturing there are other ways of increasing recovery—directed explosions, treating the borehole with various solutions, using ultrasound to reduce oil viscosity. Total costs can also be reduced by properly planned, timely exploitation of other "floors" after preliminary search of fields with highly productive strata.

Exploration costs can also be reduced. This is made possible by contemporary scientific and technical achievements, first of all, infrared spectrum remote sensing from space, the newest modifications of seismic and electrical prospecting methods, making it possible to contour a deposit without drilling. All these are the so-called "direct" methods, which are revolutionizing search and exploration. In order to understand the importance of these innovations it is sufficient to note that prior to their introduction, both here and abroad only 30 out of 100 wells yielded a flow of hydrocarbons, 70 were dry. With the new methods these figures are reversed. In essence, search and exploration drilling is becoming only the proof of predictions by "direct" methods.

In the past year I have repeatedly suggested to the USSR Ministries of the Oil and Gas Industries and the Ministry of Geology that they help set up a temporary collective to develop and introduce "direct" exploration methods. In three years small investments could locate gigantic new deposits. Alas, nobody responded. It is understandable why. This collective will undermine the "metering" benefits. It will become a real hinderance to substantializing multi-billion ruble expenditures. If there were a careful, economic attitude towards wells and towards oil reservoirs, if new exploration methods were introduced and there were a properly thought out transition from "floor" to "floor", then West Siberia would not need huge expenditures to maintain extraction levels. These levels could even grow. At the very least, one third of the planned resources could be boldly used for the

development of East Siberia. And it must be developed. I will not repeat this. Above all, it is needed by our country. In view of the USSR's new peaceful initiatives, refined hydrocarbons could be exported to countries in the Pacific Basin.

If East Siberia were to begin producing oil and gas, there could be solutions to several ecological problems in cities in Krasnoyarsk Kray, Irkutsk Oblast and the Yakutsk ASSR, many of which now require immediate help. After the gas supply system was built at the Norilsk Mining and Metallurgical Kombinat, its production increased by almost 30 percent and there were sharp improvements in air and water quality, 8,000 miners were freed from heavy underground work. Between 1970 and 1983 the use of gas in Norilsk saved 8.2 billion rubles. One can imagine the effect this would have in Krasnoyarsk. To show the importance of these figures, I will point out that a comparatively small share of the natural gas supplied to the Norilsk Mining and Metallurgical Kombinat would pay back all (!) expenses for oil and gas search and exploration in East Siberia, totalling 7.5 billion rubles over 45 years.

The new region would pay for itself quite quickly. It would also help improve some infrastructure problems. For example, by the end of the century we could pay for our long suffering BAM [Baykal-Amur Mainline] just by hauling millions of tons of oil and potash to the Far East and countries of the Pacific Basin.

The discovery of the oil and gas province in East Siberia was a world wide sensation and a scientific gift to civilization. Oil and gas here are in strata which were not considered promising for hydrocarbons, not only here, but abroad.

Now our experience is being fruitfully used in America, Canada and Australia. Yet, at one time I and my colleagues had great difficulties showing the need for exploratory work in East Siberia and for searching for hydrocarbons where they were "forbidden" to be—in the Proterozoic, in strata 600-700 million years old. It was in East Siberia that, for the first time on the planet, rich deposits of oil and gas were discovered in the Proterozoic sedimentary system.

Why Has the "Introduction Belt" Not Yet Started Working?

[V. Ivanitskiy] Andrey Alekseevich, during the discussion with scientists in Krasnoyarsk they were seriously criticized for not having a solid approach to many vitally important questions in the kray's development...

[A. Trofimuk] This was quite justifiable. I think that if they do not have a civic perspective, experts are often servants of those in power. Our thinking has not and does not always coincide with officially set directions. This must be stated openly and not whispered in corners.

Of course, an expert's civic perspective should be determined by the importance of the questions raised. Risks should be taken, especially if they concern the entire country's economy. I think that the more important the matter on which an expert is working, the more intense should be the civic concern. Of course, I can be accused of many things, but keep in mind that at one time oil in West Siberia was thought to be a scientific delirium. Now it is impossible even for a minute to imagine that it is not there.

It is, of course, unfortunate that in our oil and gas industry there has evolved a system of criteria for evaluating work which is a system for the step by step destruction of the country. If this does not happen it will only be because our land is rich, surprisingly so. It silently endures all ugliness and even gets some good out of it. I hope, that with regard to East Siberia we will finally find a common language for all interested and disinterested agencies, just like we found for Baykal and are now searching for in discussing problems such as the use of power resources and ecological improvements in industrial centers in Siberia and many others. I am not placing hopes upon specific people, but upon a process of perestroika which will clear the mind. Perestroika should bring an economical and farsighted approach to oil and gas extraction.

Understandably, under present conditions an economical approach is one which is based upon the conclusions of science and upon the knowledge and methods which it offers industry. I think that the time is not far off when we will understand that science and its progressive sectors should be financed like defense, and maybe even better. It is basic science that is the beginning of all revolutionary processes transforming the economy and life. It is sad to see how sometimes we economize on basic science, not trusting in it, and in the final account cheat ourselves. Recently we offered a Tyumen field a development which would strengthen machine parts by a factor of 5-6. They were excited: "Yes, that is great." But they rejected it. Under cost accounting there was no money to pay for the work.

A special case, but indicative in many ways. It is how we approach science on a small and large scale. This is why there has been no genuine development of the idea about a "Introduction Belt" around Akademgorodok, in which interested ministries would set up their own design offices for developing ideas from basic science. Something different happened. For example, the Ministry of Geology set up a design office for geophysical instrument building, but after a few months began to load it down with secondary tasks, giving secondary priority to the tasks for which it was organized. Even here a narrow departmental approach predominated.

It would be better if design offices were generally not subordinate to a department. They should be transferred to scientists. Then practically any problem could be quickly solved. This would not require any capital

investments, it would be sufficient to see that the "Introduction Belt" is set up so that it could solve ecological problems, the creation of much needed technology for water purification, something extremely urgent for Krasnoyarsk. It could become totally involved in improving the technology for purifying industrial wastewaters. However, this means war with the ministries. There are not many allies here, everyone fears spoiling relations with them.

It seems to me that this approach will be maintained as long as ministries are retained as directive organs and until their workers, at least the minister and deputies, are elected by the collective's labor collectives and the ministries themselves converted into concerns, firms on full cost accounting. Then there will be a healthy approach to problems in the sector, there will be emphasis on long range perspective and, if you like, patriotism and a civic attitude.

Are There Alternatives For Power Engineering Development?

[V. Ivanitskiy] You very persistently advocate hydrocarbon forms of energy and link the country's economic development to them. Today, however, people are increasingly beginning to talk about their partial, and in the long term complete replacement by alternative and ecologically harmless forms of energy.

[A. Trofimuk] I am by no means adhering to a narrowly departmental perspective. There is still only talk about alternative forms of energy. There will have to be serious research and a lot of work to replace just a small share of oil and gas. I am a realist: hydrocarbons are the main energy source in the 20th Century and will remain so even longer, what is more, they will cost the least. Of course, alternative forms of energy should be used in small units even today. This is being done in other countries. For example, when I was in Australia I did not see a single farm without a windmill. I am all for a comprehensive energy supply in a given region. If today one can somehow replace part of the oil and gas with wind, solar, tidal or geothermal energy why not do it? This would save more oil. Also, I think that we must look for other non-traditional energy sources, such as gases dissolved in groundwater. We must also develop alternative forms of transportation such as dirigibles. Some Japanese once embarrassed me by asking why we fly around in helicopters and airplanes, but do not use dirigibles to transport large loads. How was I to answer them? Tsiolkovskiy, who, as is known, was correct even in the most complicated cosmic calculations, asserted that dirigibles are the only economically advantageous way to transport large loads long distances. I do not know why we believe Tsiolkovsky with regard to everything else, but not this. There are many opponents even to the idea of building dirigibles. These are primarily aviators, who do not want competition. Dirigibles would take away a lot of money from them. To give you an idea

of how high transportation costs are, I will point out that hauling a set of drilling equipment 70-100 kilometers costs almost as much as the equipment itself.

However, dirigible construction is a separate subject. In this discussion of them I only wanted to touch upon our tendency towards monopoly.

[V. Ivanitskiy] Andrey Alekseevich, in speaking about alternative forms of energy and their interaction with traditional ones, you repeatedly called upon us to economize. Doesn't this mean that in spite of the bright prospects for East Siberia and the still inexhausted resources in East Siberia, the day is not too far off when the oil and gas will be all used up?

[A. Trofimuk] I will assure you that our descendants will have as yet undiscovered hydrocarbon reserves in the USSR that will be equal to those so far discovered and extracted.

Also, more than 50 percent of the oil in past and presently developed fields remains in the ground. There are various reasons for this, including poor standards for oil extraction. There are still practically untouched oil and gas reserves in the continental shelves and slopes. They exceed the total oil and gas resources discovered, extracted and forecast throughout the entire country. We have still not used deposits of highly viscous oil and hard bitumen. Our country's reserves of these total tens of billions of tons. Finally, and most importantly: Soviet scientists have discovered a new energy resource—gas hydrates. These are hydrocarbons bound with water. Under certain conditions water molecules capture gas and the compounds sink to the ocean bottom. There are gas hydrates in the permafrost zones. Studies show that these resources are two orders of magnitude more plentiful than free gas in all the continents. Our studies have been supported by American and Canadian scientists.

[V. Ivanitskiy] Again a sensation?

[A. Trofimuk] Not so far. It will be a sensation when we invent a profitable technology for extracting gas hydrates. We are working on this problem. Understandably, technologies will be found when there is a burning need for them. Today, however, the need is for a new oil and gas province. And there is a concept for developing the earth under East Siberia.

Ekibastuz Continues to Suffer From Poor Planning, Equipment

18220014b Alma-Ata KAZAKHSTANSKAYA PRAVDA
in Russian 16 Sep 88 p1

[Article by A. Chernyadev: "For the Sake of Ambition"]

[Text] Ekibastuz is growing rapidly. The entire country knows about its large pits. Recently, the most modern technology for coal extraction has appeared at the "Eastern" pit. Each year during the current five-year plan

a 7.5 million ton section will be extracted. There no doubt will be praise to the builders and respect paid to the Ministry of the Coal Industry, who have given the country its next few tons of coal, quite a bit! However, miners at the "Eastern" know well what lies behind these figures. Alas, each new section of the pit brings no special joy, but only adds to a whole heap of problems.

Who doesn't know that last year when the Ekibastuz-shakhstroy [Ekibastuz Mine Construction] Kombinat beat the schedule on the 70th Anniversary of the Great October Revolution, it put into operation what essentially was an incomplete system, and, consequently, entire section. The mechanics of this "miracle" are simple: along with the incomplete projects the builders gave guaranteed obligations to deliver them later, on 15 January of this year. Even though their signatures were invested with the power of the people, they turned out to be false.

Over several years the usual pattern evolved. The delayed construction project always neglected sots-kultbyt [Social, cultural service] facilities, which, according to project specifications, had to be built in the city, together with administrative and service buildings, boilers and repair shops, everything people need for good living and working conditions. Coal completely took precedence over people, for the sake of Ministry of the Coal Industry ambitions.

Vladimir Ustinovich Aksinin, pit director, explained in a conversation, "Since 1985, that is since the beginning of introduction of projects at the pit, we have had to struggle to get builders to do all their work and to do it in a high quality manner. However, we have been unsuccessful. Managers who should call construction workers to order only lightly reproach them. When the time approaches for a project to be handed over, then there is one opinion: Hand it over at any price! We have still not made up shortcomings in the first two sections of the pit, to say nothing of the third. Nothing really came from our repeated requests to the ministry, the Ekibastuz Coal Association and the Ekibastuzshakhtostroy Kombinat."

On the surface a calm and solid person, at this point Vladimir Ustinovich could not restrain a bitter outburst and energetic gestures. One could sense that these incompletely projects were a very sore spot to him. A. T. Kuznetsova, secretary of the party buro at the "Eastern", was equally concerned.

She said, "This spring the pit and the party buro sent a "memorandum" to G. I. Morgunov, association party committee secretary, and M. M. Sergazin, kombinat party committee secretary. Prior to this there were repeated oral requests to interfere and help the coal miners. But there were no answers. We are not moved by any sort of ambition, but by concern about the pit. Why should our workers experience discomfort on the job because of some bungling and desire to look better?"

The third section did not get and is not getting what people need: an administrative-service building at the Eastern station, a cafeteria, boiler station, road equipment garage, a production-technical service depot at the Eastern station and other objects. It is especially important because the depot is needed at the project. Thirty four conveyors, 4 bucket wheel excavators, 6 reloaders, 3 sorter-loaders and other equipment are now operating at the pit. Much of this requires constant improvements and repair. However, the pit does still not have repair areas needed for metalworking, forge and press, lift and other equipment.

The kombinat has not prepared for construction. It pleads that there is not enough concrete. At the same time, in one of the depot bays mine builders have organized the production of ferroconcrete blocks for their own needs. This has had a deplorable effect upon the floor and walls. The ventilation rooms are not being built. Some of the work was inacceptably sloppy.

All this caused big difficulties at the pit. There have been repeated extensions of deadlines for repairing mining and haulage equipment, the accident rate is increasing.

"Not having repair areas means that our equipment will not be highly productive," says Vladimir Ustinovich. "This means we cannot fulfill the coal extraction plan. Construction workers answer our requests by saying that they may be able to convince the ministry to extend the date for the depot completion to 1988. In other words, find the next loophole. We, of course, are against any sort of delay."

The difficulties are also compounded by the pit not getting many kinds of equipment for the first three start-up complexes. It is a long list: a cable shop, drills, cranes and lines, welding equipment, bulldozers, excavators and many other items.

With help from superior organs, construction workers are attempting to push uncompleted projects. The association and kombinat party committees are also ignoring the situation at the uncompleted projects. This year the kombinat collective will probably hand over the pit's fourth section within the deadline. There can be few doubts that this time too, the labor victory will be exaggerated.

LABOR

Roundtable Discusses Labor Collective Councils

18280015a Moscow TRUD in Russian 13 Sep 88 p 2

[A. Kozlov report on a TRUD and USSR State Committee for Labor and Social Problems roundtable discussion: "On Behalf of the Collective"]

[Text] The labor collective council [STK] at enterprises is becoming just as normal as the party committee or the trade union committee. But whereas the sphere of activity for the latter is in the main understood by everyone, the rights and possibilities of the STK are being argued and discussed. While noting the positive contribution from the councils in asserting cost accounting and developing democratic foundations in management, it must also be said that they are still too timid in their approach to the main task—effecting extensive self-management in production. The STK's have encountered many complications in their practical work.

This was also the subject up for discussion at a roundtable organized by the newspaper TRUD and the USSR State Committee for Labor and Social Problems. STK leaders, trade union workers, specialists from the Scientific Research Institute of Labor and others took part in the discussion and exchange of opinions.

The roundtable started with a discussion of the rights and obligations of the labor collective councils as defined by the Law on the State Enterprise (Association). The essence of the first question was as follows: do these rights and functions need to be clarified, and can this be done by a general meeting (or conference) of the labor collective?

S. Shtandel, STK chairman, deputy chief engineer at the Moscow "Rubin" Production Association: In my opinion the task of the council is to work on decisions on important aspects of the activity of the collective, while the administration should implement them. The STK need not regulate housing and travel authorization to rest homes, or deal with complaints and so forth. The trade union is there for this. But take, for example, the question of forming the production plan; this is a matter for the council. But what are its possibilities here? Virtually none. How is the council able, for example, to oppose an unrealistic state order imposed from above?

The ministry also decides many other questions for the collective. For example, when a director should award a bonus for economic activity and when he should not. Why does the council not have this right? For it often happens that in order not to fall out of favor with the ministry he tolerates any kind of arbitrary rule. But what if the STK determined the administration bonus...

Or take another question. The decree on the USSR State Board of Arbitration has been promulgated. It affords the council the right to participate in arbitration matters. Again a hazy kind of right. How does it participate? With

what rights? The STK representative may or may not be barred from a meeting, but by which of those present? In general I would favor clarification of the law and concretization of certain STK rights.

G. Kudryavtsev, STK chairman, deputy director of the No 3 Furniture Combine of the "Tsentrmebel" All-Union Production Association: In fact, higher organizations take little account of the opinion of the STK. For example, without the agreement of the labor collective the ministry made our combine part of an association. It was obviously included to cover two other economically weak enterprises.

What has the association given us? We now have an additional superstructure above us and additional expenses, including expenses to maintain the apparatus of an all-union production association. On behalf of the collective the council has repeatedly raised the question of withdrawing from the all-union production association but no one listens to us. You do not have that right, they say. This means that the law on the state enterprise needs safeguarding in this respect...

V. Kulichev, STK chairman, milling-machine operator at the Moscow "Temp" Production Association: I agree that the director must still bow to the ministry on many questions. If he shows intractability or obstinacy he may be completely taken in hand... Now many people are saying "less tutelage from above, "do not interfere in the affairs of the collective." How is this in fact done? We held elections for a manager. The records of the proceedings were sent to the ministry but they were not confirmed. Why is it that the results of voting in the collective are not sufficient basis for the ministry to issue an order naming the director?

V. Gavrilov, deputy chairman of the USSR State Committee for Labor and Social Problems: I am not sure that at the present stage it is necessary to act precisely in that way. The right of higher organs to confirm or not confirm STK decisions must still be reserved. For many decisions are still immature and hasty. Of course this right must to some extent be limited.

A. Kobyakov, chief of the labor collective self-management sector at the Scientific Research Institute of Labor: The question of cooperation between the enterprise STK's and their ministries is a sore point. Today no legal basis has been established for their mutual relations. And the problem of whether or not this is to our liking is on the agenda, like the problem of self-management at the sector level.

A Novichkov, chairman of the trade union committee at the Moscow "Frezer" Plant: What a paradox! The law states that the labor collective is the full master in production and resolves all tasks. On the other hand, the director carries the legal responsibility for the affairs of the enterprise. So where should the boundary be drawn between the two responsibilities?

Ye. Abramov, chief of the legal regulation of labor and social development sector in the USSR State Committee for Labor and Social Problems: There is no contradiction here. Within the limits of its competence the decisions of the STK are binding on everyone, including the administration. The manager cannot resolve by himself questions falling within the competence of the general meeting of the collective or the STK. There is more. Does the STK need to extend the sphere of its work, and in which direction? To participate, for example, in the examination of a dispute in arbitration concerning the imposition of fines for failure to make contractual deliveries? I think not. Although there are no legal impediments to this.

L. Lashchenova, STK chairman, chief of knitted production at the Tushinskiy Hosiery Factory: I would like to bring the subject under discussion to another plane. Is the enterprise director always interested in the existence of the STK? And even more in a strong one? In the council he sees a rival to his power and therefore tries by any means to bar it from participation in affairs of vital importance for the collective.

A. Kobyakov: In fact at a number of enterprises in Moscow about 80 percent of the members of the collectives do not know what the councils discuss and what decisions they make. That is, there is no proper glasnost in the work of the labor collective councils. We thought that this was occurring only at the plants that we investigated. But now today's investigations confirm that (with few exceptions) the situation is the same with the figures as it was at the KamAZ and other enterprises in the country. The impression is being created that the council from the organ of the labor collective is becoming an organ standing above the collective. A dangerous trend. And so, when KamAZ wanted to adopt a provision on the STK we recommended that they adopt a provision on a system of self-management. And they did so.

[Editorial comment] Thus, those participating in the roundtable drew their first conclusions. It is difficult to become accustomed to the labor collective councils at the enterprises. Many of them are operating timidly, constantly looking over their shoulders. They lack initiative, independence and competence. The law on the state enterprise has given the STK broad powers. But an inability to use them creatively often makes the councils appendages of the administrative structure. That is, their activity nurtures the interests not of the labor collective but the management organs, which also direct the efforts of the STK into the channel it wants.

All of this, we hope, is merely growing pains. For wherever the STK's display persistence and independence people believe in them and go to them. Examples of initiative-filled work can be seen in the STK's at VAZ, the Leninград city No 71 Transport Enterprise and a number of enterprises in Moscow. Self-management is growing noticeably stronger there. But these are still just a few

islands. In order to prevent the principles of self-management from being emasculated the STK's must act on a principled basis not only with the administration but also the public organizations, first and foremost the trade unions. Cooperate—but how?

L. Artamonova, STK chairman, deputy general director of the Svetlogorsk "Khimvolokno" Production Association: Undoubtedly the trade union committee can make a major contribution to the development of self-management in production. However, a kind of misunderstanding, and sometimes even antagonism, exists between it and the STK and between the council and the administration. This is often expressed by the STK duplicating the work of the trade union, in particular in the social sphere. The trade union sometimes simply tries to ascribe to the council functions that it does not have—labor safety, monitoring observance of labor legislation, organizing leisure and so forth. Why does this happen? Because the law on the state enterprise does not divide powers between them. In my opinion this is a major omission permitted in the law. There is more: the STK's had scarcely started to function before higher administrative organs "threw themselves" into checking on them and exercising tutelage over them. The first to come to us was the representative of the trade union central committee. By what right? Have they not read the law on the state enterprise?

S. Kleymenov, STK chairman, fitter at the AvtoVAZ Production Association: And our first friction was between the STK and the trade union. In order to avoid duplicating the functions of the trade union we elected one of the trade union deputy chairmen at the Zakharov Plant to the post of deputy chairman of the STK. When the council deals with matters connected with the work of the trade union he explains how it is being handled by the trade union. It also happens that the STK handles matters at the request of the trade union.

Yu. Skvortsov, AUCCTU work consultant: I would like to express my ideas on mutual relations between the STK and the trade unions. For 6 months we have been "bombed": give us the position on the STK and write down who should be doing what. But why make such a delineation? For the STK's and the trade unions are designed each to fulfill the function given it.

[Editorial comment] With no major differences those taking part in the roundtable concluded that the trade union should be interested in the efficient work of the STK and should help it to assert self-management. Through its actions it is obliged to augment the STK, not replace it. And contrariwise. As they say, the trade union is a trade union and the council is a council.

The development of cost-accounting relations in production is now forcing the STK's to pay more attention to economic matters. But it happens that they are shrinking

from complex production-economic tasks. As a result their decisions are sometimes ineffective, not optimal, and it happens that the councils are simply giving up in face of the complexities.

L. Artamonova: Before leaving to attend this meeting I was talking with one of our economists. He advised that the council has no "driving" people who would be precisely oriented on economics. This, he said, is one of the major reasons for the STK's underfulfillment of its task. If their members were selected on a sound basis within the education system that covers fixed production capital, pricing, financing and normativs, then the councils would operate more productively. But the leader in resolving economic tasks is the director or chief economist on the council. In other words, economic training is necessary for STK members.

G. Kudryavtsev: There is a shortage of various methodological literature on economic and legal matters. And what are published are of poor quality.

L. Pashina, STK chairman, chief economist at the "Moskovskiy" sovkhoz in Moscow Oblast: The STK at an industrial enterprise can find some kind of literature but for the council in agriculture there is virtually none. As they say, we have to stew in our own juice. Training for STK members must be necessarily organized on the sector principle...

[Editorial comment] In order for the STK members to act confidently in the economic sphere, in particular in key directions of perestroika, they must be taught the science of management and control. The USSR State Committee for Labor and Social Problems, the AUCCTU and the ministries and departments must concern themselves with this. Programs are needed both for the STK chairmen and the STK members, and it is essential to consider how to organize training and to be concerned for the publication of economic, legal and methodological literature.

The meeting that was held confirmed that the organizational period of the STK's cannot be prolonged. The councils can in no way be "inserted" into the system of cost-accounting relations. Most STK ineffectiveness stems from their lack of competence in the socioeconomic and legal spheres. The councils are frequently moving ahead by the method of trial and error. As is known, this is not the best path. And it is very long.

At the meeting it was proposed that an all-union conference of STK chairmen be convened. However, those participating in the roundtable discussion were unwilling to raise the question of what would be discussed at such a meeting. Growing pains again? Particular problems in bringing organization from the confusion, and adaptation of the STK? Particular provisions of the law on the state enterprise that are being interpreted in different ways?

Obviously, because of this there is no need to rush to gather together all the chairmen of the labor collective

councils throughout the country. From this roundtable discussion we may conclude that they are still not ready to discuss the main issue—the further role and tactics of the STK's in restructuring the economic mechanism for the national economy. They are not ready because many STK's are largely embroiled in organizational confusion.

Self-management is not the latest craze, not the latest fashion, but one of the main components of further progress in our society.

We have grown accustomed to looking over our shoulders for instructions. But in this a sense of self-management is essential because essentially new issues must be resolved. In each case we must proceed from specific production conditions and test the various scenarios. The meeting of the labor collective itself has the right to make decisions within the framework of the law on the state enterprise. Recommendations "from above" should be regarded not as dogma, but creatively. A recommendation is only a recommendation, but the main thing is initiative and lively creativity of the workers themselves.

Working Women's Role in Society Appraised
18280014a Novosibirsk EKONOMIKA I
ORGANIZATSIYA PROMYSHLENNOGO
PROIZVODSTVA in Russian No 8, Aug 88 pp 127-137

[Article by E.Ye. Novikova and O.L. Milova, candidates of historical sciences and Ye.V. Zalyubovskaya, Candidate of Psychological Sciences, Scientific Center of the AUCCTU, Moscow: "Modern Woman At Work and In the Home"]

[Text] The specific requirements and interests of women and the characteristics of their consciousness and life style have still not been analyzed thoroughly in scientific literature. In particular, it is important to know how the women themselves evaluate their status and to reveal and describe those changes which have taken place in their psychology. In our reasoning, we relied upon the results of a social-psychological study carried out by personnel at the Scientific Center of the AUCCTU¹. The materials obtained make it possible to reveal both the overall features inherent in a given socio-demographic group and also the differences conditioned by the social status of women—textile workers and engineering-technical personnel. In our study, they are presented as equal groups which are similar in terms of age, length of service in their specialties, family status and number of children. The typical nature of the results of this study is borne out by other data.

Let us begin with an analysis of the evaluations by female workers and ITR's [engineering and technical personnel] of their work (see Tables 1 and 2). More than 70 percent of the female workers and ITR's are satisfied with their work or are inclined towards such a response, with the female workers selecting more extreme responses (yes or no) and the ITR's—evasive responses. The overwhelming majority of female workers and ITR's evaluated in a positive manner the attitudes in the collective towards

the management and only very few were dissatisfied with their situation. The degree of satisfaction among the ITR's with the creative nature of their work and the possibilities for advancement in service was substantially higher. Approximately one half of the ITR's were dissatisfied with their labor conditions and organization. Only 43 percent of the female workers and 22 percent of the ITR's were satisfied with their wages.

Table 1

Attitude toward work by women workers and ITR's, in percent

Satisfied with work	Female workers	ITR's
Yes	46	32
More yes than no	24	46
More no than yes	15	19
No	15	2.6

It is noted that women make a considerable contribution to a family's budget. According to our data, the wages of women constitute the principal income of families among 37 percent of the female workers questioned and 15 percent of the ITR's and more than one half of the income among 14 percent of the female workers and 12 percent of the ITR's. Thus the wages of women constitute the principal source for the means of existence for one half of the families of female workers and one fourth of the families of ITR's, with the standard of living of the families being directly dependent upon the amount of these wages. This applies mainly to married women. But as a result of divorces, the death of a spouse or the birth of children outside of wedlock, the number of families headed by women is increasing on the whole throughout the country. Each year, more than 700,000 children remain with one parent following divorces (as a rule, with the mother) and more than 500,000 children are born outside of wedlock. The number of incomplete families amounts to more than 10 million. For the overwhelming majority of these families, the wages of the women constitute the only source for vitally needed funds. Thus the economic stimuli for work by women are rather strong.

Table 2

Responses By Those Questioned Regarding Various Aspects of Satisfaction With Their Work, in percent

	Yes	More yes than no	More no than yes	No
Relationships in the Collective				
Female workers	60	22	4	8
ITR's	57	34	5	4
Relationships With Management				
Female workers	46	24	7	14
ITR's	40	40	16	4
Creative Nature of Work				
Female workers	17	16	18	35
ITR's	34	31	22	12
Possibility of Advancement in Service				
Female workers	8	8	17	51
ITR's	21	23	29	26
Working Conditions				
Female workers	23	16	14	37
ITR's	23	32	23	21
Amount of Wages				
Female workers	43	17	14	21
ITR's	22	24	21	32

Why Do Women Work?

The most significant motive for work among women is the material motive, although there is also a hint of a psychological motive: they enjoy having their own earnings and being independent. In second place, there is the motive of a moral-ethical nature: they work because they feel that they are needed and cannot imagine their lives with no work. In third place—motives which we refer to as "compensatory": as a result of their work, women do

not feel themselves to be alone; at work they forget about their domestic and personal problems and troubles. Those women who were questioned noted that work enables them to display creativity and initiative and it develops a respectful attitude among friends, acquaintances and relatives. But these latter prestigious aspects are of minor importance. The fact that the work motives for women are external in nature and are of value of and by themselves to a lesser degree is rather significant and provides food for thought.

The professional status of women is seriously affected by their family status and the need to combine roles and this tends to limit the selection of their work, inhibits their advancement and creates difficulties in carrying out their work. Approximately one third of the female workers and ITR's singled out the great nervous strain they must work under and 14 percent of the female workers and 19 percent of the ITR's mentioned the fatigue caused by household work and childrens' illnesses.

The female workers and ITR's had diverse opinions when it came to evaluating other difficulties which complicate their work. Thus one fifth of the female workers complained about their great physical workload (that is directly associated with the working conditions of textile workers) and almost one third of the ITR's mentioned a shortage of professional knowledge and practical experience. And this is understandable. Indeed, engineers must keep themselves "up to date," monitor the latest developments in technical literature and supplement and renew their knowledge, that is, they must devote a great amount of time to self-education and this is extremely difficult for family women owing to a shortage of free time.

Thus the truly professional difficulties pale in comparison to the excessive workload being borne by women at work and at home. This explains the fatigue and constant nervous tension, the fear of not succeeding and not being able to cope and so forth. It is obvious that all of these attendant circumstances inhibit the full value of inclusion of women in the production process.

How Do Women Combine Their Professional and Family Roles

One of the more important characteristics is that of satisfaction with marriage. Almost one third of the female workers and somewhat fewer ITR's evaluated their marriages as being unhappy or slightly unhappy. It is interesting to note that nevertheless only 8 percent of the female workers and 7 percent of the ITR's think very often about divorce. "Rather often"—12 percent and 13 percent respectively.

Of special interest were those responses which describe the attitude of husbands towards their wives' work, since the mood of the wives and their attitude towards their professional work and their overall self-worth are dependent upon such an evaluation. In the case of roughly one half of the women, the husbands feel that their wives devote less time to their families and homes because of their outside work. At the same time, the majority of female workers and ITR's emphasized that their husbands do not feel that such work prevents them from being gentle and feminine. It bears mentioning that in the case of 26 percent of the female workers and 6 percent of the ITR's, the husbands feel otherwise. The husbands of 63 percent of the ITR's and 46 percent of the female workers fully approve of their work and

display interest and respect towards such work. Roughly one fourth of the female workers and one tenth of the ITR's encounter an opposite situation.

The difficult nature of this situation derives from the attitude of husbands towards the work being performed by their wives. On the one hand, the stereotype of a working woman that has become firmly established in social consciousness necessarily affects the evaluation by husbands (a positive evaluation on the whole) of the very fact of participation by their wives in social production. And although, in the opinion of a majority of the women questioned, the children do not experience any shortage of concern or attention on the part of their mothers, nevertheless in many families the husbands feel that their wives are not devoting sufficient attention to their homes or families and they do not feel that work enriches family relationships.

In order to ascertain the principal orientation of the women, the following question was asked: "If the wages of your husband were increased considerably, what would your preference be?" The responses to this question were distributed as follows: approximately 20 percent of the ITR'S and 26 percent of the female workers wished to remain at their former work, 32 percent of the female workers and 64 percent of the ITR's wished to work part time, 30 percent of the female workers and 12 percent of the ITR's would convert over to other (more attractive) work and only 3 percent of the female workers and 4 percent of the ITR's intended to abandon work generally.

Considerable attention was focused on the fact that many women are not satisfied with the duration of their period of work and prefer to work part time. The predominance of ITR's among those desiring to work part time is explained by the fact that ITR's contribute less to a family budget than do female workers and also by the desire on the part of female ITR's to devote more attention and time to their families and children. It is noted that throughout the country as a whole, according to the data obtained from random studies, from 10 to 30 percent of the women expressed a desire to convert over to a favorable regime. As a rule, these are mothers of children of pre-school or young school age. Among those leaving because of family circumstances, 10 percent of the women could remain in production and work on a part time basis. Actually, one half million women, or less than the overall number of women employed, are operating under such a regime at the present time.

The true behavior of women is at odds with their notions regarding harmony between the two roles, with priority interest being displayed for the interests of the family (55 percent of the female workers and 64 percent of the ITR's believe that a married woman must work provided such work is not in conflict with family interests or the raising of children). Only one fifth of those questioned were oriented unconditionally towards the need for combining these roles. Only a few women (25 percent of

the female workers and 17 percent of the ITR's) indicated a preference for the family over work ("With good earnings by the husband, the woman must not work but rather raise the children"). But the responses to the question: "Which sphere of your life do you believe to be more interesting and fulfilling?" indicated that those questioned were more satisfied with the status of affairs in their families rather than at work.

Moreover, one half of those questioned felt guilty with regard to those at home and for not displaying sufficient concern for them. Approximately one half of the women (43 percent of the female workers and 65 percent of the ITR's) were troubled over the fact that they were not paying sufficient attention to their household affairs because of their work. This also confirms that the management of such work rests on the shoulders of women and it indicates higher requirements being imposed on educated women—ITR's—for organizing and managing the household economy. Among those factors which tend to complicate household work, 62 percent of those questioned assigned to first place those difficulties associated with the purchasing of products and industrial goods, 20 percent—shortcomings in the sphere of services, 90 percent—in organizing recreational activities and 6 percent—the low level of mechanization of the household economy.

And finally we attempted to clarify the degree to which household work affects the carrying out of professional functions. Roughly 81 percent of the female workers and 65 percent of the ITR's indicated that they do not have interesting plans or projects associated with work because they could not be carried out owing to the workload imposed by household duties. This fact can be interpreted in two ways: either the work itself is not creative or the attitude of women towards their work, because of their household workload, is more industrious. Almost one fifth of the female workers and one fourth of the ITR's have interesting plans and projects which cannot be carried out owing to the workload imposed by their household economies. This circumstance can be viewed not only as recognition of the unrealized potential of women, but also as a reserve for further developing their labor activity. Somewhat less than one third of the women are performing professional duties to the detriment of managing their households and this testifies to the presence of real difficulties, particularly for creative personalities.

The conflict between professional and family roles among a large group of women is borne out by the fact that 27 percent of the female workers and 35 percent of the ITR's often express a desire to abandon their work and devote their lives entirely to their homes and families. A considerable number of women have obviously found their own variant for combining these roles (be it a conflicting or harmonious combination).

In the case of a harmonious merging of these roles, work and family are equally meaningful for the women and real achievements are being realized in these fields. The

satisfaction with work, marriage and children is high, the emotional background is positive and there is no conflict between the two roles. Unfortunately, this group includes, without allowances, only 14 percent of the female workers and absolutely no ITR's. These are women of different ages with different educational and family backgrounds. The majority have considerable experience with family life—10 or more years.

In the case of a conflicting combination of roles, a contradiction arises as a result of a high degree of meaningfulness for the women of both spheres—professional and family, when a successful combination is impossible. Professional and family life require extreme efforts on the part of women and they are accompanied by serious psychological difficulties, a raised state of anxiety and so forth.

Roughly one fifth of the female workers and ITR's are involved in a conflicting type of combination of roles. These are women of various ages having secondary, secondary specialized and higher educations. A majority of them are married (77 percent of the female workers and 69 percent of the ITR's), with the remaining having incomplete families. They are characterized by a very low degree of satisfaction with their work and average satisfaction with their marriage and children. The attitude of a husband to the work of his wife is on the whole negative and marked by a high sense of guilt and so forth.

Roughly 17 percent of the female workers and 27 percent of the ITR's are at the "junction point" for the harmonious and conflicting types of role combinations. They have achieved successes in both their families and in work and their emotional background is positive. However, their sense of guilt is clearly expressed and they have a high indicator with regard to a role conflict. The possibility of a harmonization of roles or a deepening of the conflict in this group is largely dependent upon the presence or absence of social support measures.

The role conflict is expressed mostly among women who are oriented mainly towards the family. As a rule, they are not sufficiently satisfied with their work or with their relationships with colleagues or management and all is not well for them in their families: they do not enjoy psychological support at home.

What Can Aid Women in Combining Their Family and Professional Roles?

Those women who have a strong sexual classification (here we have in mind a clearly expressed conformity to the traditional stereotype of "female behavior") or who are oriented either to family and work to an equal degree or mainly to work tend to combine more successfully their professional and family roles and are better adapted to this situation. Women who successfully combine the various roles enjoy socio-psychological support both in a labor collective and in their family. And conversely, the cause of a role conflict in the professional

sphere can be poor relationships with colleagues or with management. A truly unfavorable psychological climate in a labor collective, a lack of understanding and mutual assistance among colleagues and with management and inter-personality conflicts lead to stress situations, create an unhealthy psychological background, prevent a woman from performing her professional roles and result in the development of a role conflict.

Within a family circle, a role conflict can bring about a negative attitude by a husband towards his wife's work; patriarchal notions of husbands regarding the role played by their wives in their family-domestic sphere; the absence of mutual assistance and a division of labor among family members; difficulties associated with the raising of children.

In an intimate social environment, the cause of a role conflict derives either from the negative aims of working women, the traditional notions regarding male and female roles or from failure to properly evaluate the importance of family life. The latter leads to a complete absence or distortion of "female" upbringing (the result—the inability of women to adapt to the management of household duties or the raising of children). Another cause—insufficient personal contact and a concentration upon one's own problems.

For the overwhelming majority of women, the twofold burden—production and family life—does not pass unnoticed. Thus the level of anxiety among the women questioned was rather high and among ITR's it was higher than among female workers. Roughly 80 percent of the female workers and ITR's, after having completed some type of important work, felt that they could have done it better. Almost half of those questioned (the figure was somewhat higher for ITR's) felt that they were not needed by anyone. The overwhelming majority of the women were bothered frequently by insomnia. Many of the female workers and ITR's were troubled over their status among associates. They felt that they were at times worse than other people, that they were confronted by difficulties which they were unable to overcome, that they were unhappy for no special reason, that whatever they said or did made little difference and they were troubled by their failures and easily disturbed over trifles. The women who were questioned were self-critical and their inner life was complicated. Many of them existed in a state of psychological discomfort, as borne out by their anxiety, depression and poor attitude of mind. Their anxiety is directly dependent upon the degree to which they are satisfied with their marriage and upon their husband's attitude towards their work. Women who are mainly oriented towards work display a lesser degree of anxiety and they are better adapted to combining professional activity with motherhood. It is recalled that work performs a compensatory function for 13-17 percent of the women questioned.

This is confirmed by studies carried out by physicians. Thus, in recent years an increase has been noted in nervous and mental disorders, with neurosis occurring

2-3 times more frequently in women than in men. The greatest number of such disorders occurred in women ranging in age from 30-49 years.

The socio-psychological portrait of a woman is enhanced by an evaluation furnished by the women questioned regarding the qualities which they possess and those they would like to have. The recommended group of qualities included those which were typically female and typically male. General and professional qualities (ability to make decisions, discipline, conscientiousness, creative approach to work, self-criticism, organizational capabilities and industry). This is obviously an extremely arbitrary grouping.

The women questioned, in their own opinion, are characterized mainly by female traits (gentleness, intuition, sensitiveness and wisdom). However, many of them place little value in these qualities and do not consider them necessary. They strive to develop in themselves mainly those qualities which they require as professionals, since this will aid them in coping better with their official and social obligations.

The female workers and ITR's who were questioned noted that on the whole they are disciplined, conscientious, self-critical and able to make decisions. However, they would like to possess greater organizational capabilities, industry and a creative approach to their work, that is, they singled out in particular those qualities which are still not adequately developed in them personally but which, in their opinion, will enable them to achieve success in their work.

Thus the women whom we questioned, without disavowing their "female nature," would like to possess those same qualities which earlier were monopolized by men.

In conclusion, let us attempt to summarize briefly those psychological traits which describe our modern woman. First of all, there is the complete recognition of equality of rights, equality in the area of potential and capability to participate in all spheres of social life. Another important feature is recognition of the need for combining various social roles—not only as an active participant in labor and social life, but also as a "housewife" and mother. Women select the different variants for combining these roles, although the majority of these variants have roughly the same significance. A woman makes her own specific selection of the path she will follow in life in conformity with her personal qualities, preferences, tastes and life circumstances and the possibility of such a selection is guaranteed by society, which furnishes her with economic and moral support for each of the paths selected by her.

However, not even the most progressive type of social practice is capable of abolishing the psychological difficulties which arise when women have "dual" employment—at work and in the family. During the early stages in the development of Soviet society, these difficulties

were not apparent as specifically and clearly as they are today. Society is helping them to overcome their difficulties, but in addition to measures of assistance a need also exists for a tremendous amount of psychological work on the part of the women themselves. And the majority of women recognize this fact.

The equal status of women in society is changing substantially the traditional notions regarding such traits as masculinity and femininity. Women are now linked to a greater degree with behavior styles which earlier were assigned to men, for example the ability to make decisions, to defend one's opinion, independence and others. But these new traits of a psychological nature possessed by women are evaluated differently by men. In many families, not only is a considerable portion of the domestic problems being transferred to the shoulders of the women, but in many instances the men are reluctant to accept the independent behavior style of their wives and this is convincingly borne out by an analysis of the causes of divorce. And the "guilty party" here is by no means the emancipation of women, which is often accused of all of the sins, but rather it has to do with the fact that the process has not been completed, it is contradictory and it often is carried out in unfavorable forms.

Footnote

I. At the installations selected by us—the Tallin Association "Baltiysk Textile Mill" and the Central Scientific Research Institute for Technical-Economic Studies and Information of the Ministry of Instrument Making, Automation Equipment and Control Systems (Moscow)—an extensive interrogation of women was carried out—trade union activists (chairmen and members of trade union committees, social committees and organizers of trade union groups).

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Changes in Wage Fund Structure Studied
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[Article by Zh.I. Sidorova and N.A. Vasilenko, candidates of economic sciences: "The Fund for Remuneration of Labor in the Context of Self-Financing"]

(Excerpts) Resources to remunerate labor are formed at the present time on the basis of the profit indicator and cost-accounting income. With permission from the superior organization, enterprises can accordingly choose one of two alternatives: separate formation of the wage fund and the material incentive fund or creation of a single fund for remuneration of labor as the remainder of cost-accounting income.

In the first version, formation of the wage fund in 1987 was regulated by the Standard Regulation on Formation of the Wage Fund of Industrial Associations and Enterprises Converted to Full Cost Accounting (Khozraschet). The changes from the procedure previously in effect have to do with the mechanism for formation of the base wage fund, which includes the wage fund not only of industrial production personnel (PPP), but also nonindustrial groups. Net output (ChP) is being used as an experiment in Minneftekhimprom as a wage-forming indicator along with normative output (NChP).

An analysis of the first results of enterprise performance under the conditions of self-financing showed that changes in formation of the wage fund are not only not eliminating deficiencies in its planning, they are in fact compounding them. The orientation persists as before toward single rates, and the principle that the growth rates of labor productivity should exceed the growth rates of wages is being violated. One can assume that at enterprises where the share of the nonindustrial group is high in the total labor force, the wage fund will be substantially inflated. In our view, then, the rate of the overall wage fund should be differentiated not only to take into account the objective economic conditions of economic activity, but also as a function of the share of the nonindustrial group in the enterprise's total labor force.

When the ChP indicator was inserted into the mechanism for planning the wage fund, it was assumed on the one hand that collectives would have greater motivation to improve the end results of activity, while on the other resources for wages would be more closely related to work achievements. Computations were made to that end for a number of machinebuilding enterprises of USSR Minugleprom. The different versions of wage-forming indicators were analyzed in the framework of the single (incremental) principle of calculating resources for remuneration of labor.

To be specific, the wage fund was calculated according to the indicators of the NChP, labor intensiveness, the actual net product (FChP), and net income (ChD) for the period 1984-1986. The results of the calculations were used to make a comparison of the levels of the fund-forming indicators and also of the size of the wage fund resulting from them. The criterion used was the planned size of the wage fund, which is actually formed and due insofar as the planning target is fulfilled, and also the ratio between the growth rates and labor productivity and the average wage.

The direction and changes in growth rates of the three indicators studied (labor intensiveness, FChP, and ChD) differ greatly. In the plan for 1986 a drop in the growth rate of the FChP was observed at most enterprises, while there was an increase for labor intensiveness and ChD. Moreover, at only seven enterprises was unidirectionality of the changes maintained while there was a very

substantial gap between them. For instance, at the Krasnoarmeysk Specialized Plant for Dust Control Equipment and the Druzhkovka Machine Plant imeni 50-Letiye Sovetskoy Ukrayiny (USSR Minugleprom) the growth rates of the indicators were as follows: 194.3 percent, 131.7 percent, 129.7 percent, 112.7 percent, 108.7 percent, and 145.4 percent. The situation is similar when we compare the actual growth rates of the indicators. As shown by the calculations, the necessary dependent relationship is lacking in the dynamic behavior of the labor intensiveness of output and the wage fund. For instance, in 1985 and 1986 the fund grew at 11 out of 23 enterprises while there was a drop in labor intensiveness. In these cases, the enterprises had more resources for wages than they really needed.

To a considerable degree profit, which is subject to substantial fluctuations and is often under the influence of factors which do not depend on the enterprises, determines the size and dynamic behavior of the FChP and ChD. Use of the FChP as a wage-forming indicator without first settling the question of the differing profitability of particular products and the redistribution of profit from one enterprise to another results in a substantial differentiation of the size of the wage fund.

If we look at the number of enterprises which have a larger or smaller size of the wage fund, then we can draw the conclusion that the conditions for building up resources are more rigid based on the indicator FChP. The number of enterprises receiving for their disposition a smaller fund than under the present methodology increased from 15 (65.2 percent) in 1985 to 19 (82.6 percent) in 1986. If we look at the range of discrepancies between the calculated resources and planned resources, then the maximum level of the upper limit (14 and 18.6 percent) indicates the rigidity of the conditions for formation of the funds based on the indicator ChD as well.

Similar conclusions can also be drawn from the results of expenditure of wage funds. Overexpenditure of resources indicates that they were inadequate relative to the need of production, and the existence and growth of a saving indicates that they are too large. As a rule, this is the situation at a majority of the enterprises surveyed.

The first results of applying the indicator ChP at enterprises of Minneftekhimprom also indicated that when they manufacture more profitable products the enterprises have more resources for wages than they really need. To be specific, the Moscow Order of Lenin "Krasnyy Bogatyr" PO (Ministry of Petroleum Refining and Petrochemical Industry) increased the output of PVC rubbers instead of gummed rubbers, stamped rubbers, and rubbers of plastizol in the 1st quarter of 1987 as compared to the same period of 1986. The profitability of the former is 3-4-fold higher than the profitability of the latter (15-20 percent, as compared to 5 percent), and the labor intensiveness is lower. What is more, in that same quarter it increased the output of the highly profitable athletic shoes, which made it possible to realize an additional 320,000 rubles of profit. Consequently, on the basis of the results for the 1st quarter the growth rate of the volume of ChP reached 11.5 percent, as against the 3.6 percent envisaged in the plan.

The growth of commodity output (in 1982 prices) was 1.7 percent while there was a drop in the labor intensiveness of output in comparable standards (the 1987 plan represented 94.4 percent of the actual result for 1986). The relative saving on the wage fund for the entire labor force in that period was equal to 172,500 rubles, which is 6.4 percent (11,100 rubles) greater than the size of the annual saving included in the base fund for 1987. At the Moscow Tire Plant, where the indicator ChP was also used instead of NChP, the dynamic behavior of wage-forming indicators and the size of the wage fund took shape as follows (see the table).

Indicators	1990/1985, in percentage	1987 Plan/1986 Plan, in percentage	1st Quarter 1987/1st Quarter 1986, in percentage	
			Planned	Actual
Commodity output	104.4	100.1	99.1	102.1
Net output	127.4	101.0	103.7	104.7
Labor intensiveness	106.0			
Wage fund of the entire labor force, thousands of rubles, calculated on the basis of the following:				
—Commodity output	9,453.2	2,271.4	2,298.7	
—Net output	9,487.2	2,313.3	2,320.6	
—Discrepancy	+34.0	+41.9	+21.9	

As the calculations show, while there was a 4.4-percent growth of commodity output over the 5-year planning period and a 6-percent increase for labor intensiveness,

ChP rose 24.4 percent, which is more than fourfold the rise in the labor intensiveness of output. The wage fund calculated from the rates for the actual growth rate of the

ChP was 21,900 rubles larger than when it was calculated according to commodity output. The new Standard Regulation on Formation of the Wage Fund for Enterprises, Associations, and Organizations Converted to Full Cost Accounting and Self-Financing was adopted for the period 1988-1990. By contrast with the previous regulation, this one affords enterprises the opportunity to apply not only the "incremental rate," but also the rates of wage costs per ruble of output. In the context of self-financing, transfers to the material incentive fund are made at stable rates from the profit left at the disposition of enterprises. The first months of this operation showed that when the rates for distribution of profit were adjusted, the dependent relationship was not maintained between the size of income which the enterprise itself disposes of and the efficiency of its operation. For instance, at the Minsk State Bearing Plant (Ministry of Automotive Industry) the following ratio was established in distribution of profit between transfers to the budget and economic incentive funds (FES):

	1986	1987	1988	1989	1990
To the budget, in percentage	53.0	56.4	59.7	63.0	66.8
To the plant, in percentage	45.0	43.6	40.3	37.0	33.2

The proportions of the base year were the basis for forming the rates used in distribution of profit, not the normative need for incentive funds, and this resulted in substantial fluctuation of the rates from year to year of the 5-year planning period. Enterprise collectives assigned rates with sharp fluctuations from year to year of the FYP were put in a situation where transfers to economic incentive funds were not linked to the results of labor, since when the operating results increased, the FES not only did not increase, but they often shrank. The continuing practice of redistribution of resources between profitable and losing enterprises of main administrations is a consequence of this approach to structuring the rates.

As shown by analysis, the conditions of self-financing at enterprises have not so far influenced the size of incentives from the material incentive fund, and frequently high-profit enterprises are on the same level with low-profitability and losing enterprises with respect to the size of incentives paid from the material incentive fund (FMP). The same thing is indicated by the size of the average wage when payments from the FMP are included.

A single quarter of operation under the new system is, of course, too short a period to bring about the reorientation of losing enterprises to the production of products which are necessary and profitable, to examine the advisability of enterprises which in general are narrowly specialized, and so on. This effort could obviously be speeded up by reducing the subsidies at these enterprises from year to year of the FYP. Even at enterprises of Minkhimmash, where a straightforward mechanism has been developed for calculating single stable rates for the

charge on assets and transfers to the budget, which has made it possible to create a definite objective basis for calculating the rates, a discrepancy of the indicators is observed in a number of cases.

[Passage omitted]

The present practice of financing from the budget a growth of the FMP for fulfillment of contractual obligations is in our view utterly opposed to the principles of self-financing; first, under the new conditions performance of product deliveries is becoming one of the main factors for realizing gross income, which in and of itself must be a sufficient incentive; second, it is illogical in our view, under the conditions of full cost accounting (when 100-percent performance of the delivery plan is like a law) to reduce the size of transfers to the budget as an incentive related to this indicator. In operation in the context of full cost accounting, as analysis has shown, enterprises have greater independence in dealing with a number of issues, in particular they have a somewhat stronger role in drafting 5-year and annual plans. The drafting of plans is preceded by the fairs at which contracts are concluded between the trade sector and the enterprises. That is the way the 1987 plan was shaped. But as early as December 1986 the republic Gosplan assigned to BSSR Minlegprom an additional assignment for growth rates of commodity output, which required increasing the volume of production by 35 million rubles. The additional assignment had not been backed up with materials and equipment, and thus compounded social problems (aside from the disruption of the balanced plan).

The fund for remuneration of labor (FOT) at enterprises was calculated by adding the wage fund (FZP) determined at the established rate (0.35 percent for each percentage point of growth of the NChP) and the FMP (calculated at the rate of 1 percent for the growth of profit). Then the share of resources for remuneration of labor in the remainder of gross income was determined. In order to ensure the necessary ratios in growth rates between the FOT and gross income a standard ratio was established between these rates, and it depended on the strenuousness of the effort of enterprises, which was characterized by the level of their utilization of the production resources they had. The strenuousness of operation was evaluated by the coefficient of the yield of gross income, defined as the ratio of the planned (actually realized) gross income to that which is potentially possible. The latter in turn is determined from indicators of the maximum possible utilization of raw materials, capacity, and product quality. The closer this coefficient to unity, the higher the share of the growth of the FOT for every percentage point of gross income, and vice versa.

The ministry received acceptable rates for the FOT, which is why not a single enterprise was pinched. But when the higher requirements as to the quality of goods are taken into account, the labor intensiveness of manufacturing the product increased considerably, and this put a definite strain on resources for remuneration of labor.

[Passage omitted]

Consequently, a gap is created between the labor intensiveness of the product produced and the size of the FOT, determined on the basis of the indicators of gross income and profit, and this is advantageous to highly profitable enterprises. Unprofitable and low-profitability enterprises also strive to change the structure of output and the product mix toward more profitable products, but they are doing this in the context of the present pricing system by using expensive supplies, raw materials, and fuel, so as to increase the sales prices and consequently profit. From this standpoint, the use of value indicators alone in forming the FOT, without ensuring conditions for effective monitoring and regulation of prices, can adversely affect the rise of production efficiency on the basis of intensive factors.

It is a shortcoming of the methods for formation of the FOT in effect at the present time that they, first, persist in the orientation toward the growth of volume indicators rather than to satisfaction of the needs of society for a particular product, and second, they do not take into account the labor intensiveness of the product produced, which gives rise to a contradiction between the process of measuring the fund against the need of society for the product and the amount of worktime. Simultaneously with the improvement of wholesale prices and retail prices, then, there should be an improvement in the mechanism for forming the FOT in accordance with the USSR Law on the State Enterprise (Association), it seems to us, along the following lines.

1. In the context of the change in planning procedure which is taking place in the form of state orders and also on the basis of direct contracts between enterprises and consumers, it is indispensable to change the fund-forming indicator used for building up the wage fund. That indicator should be the volume of product deliveries, which would include deliveries related to state orders and also under direct contract. Here, the rate used to build up the wage fund could be differentiated within the enterprise as a function of the importance of the product being produced or of the priority of the purposes for a given production. At the same time, this must further maximum utilization of production capacities and a growth of profit. There is no longer a need to stimulate product deliveries out of the budget, and there is greater motivation to take advantage of all opportunities.

2. The shrinking of labor resources along with other types of production resources is an important factor in the growth of cost-accounting income. That is why the dependence of resources for remuneration of labor on those indicators is already an incentive for reducing the labor costs of the product's production. But it must be taken into account that the base wage fund which has formed and is included in the calculation in any model of fund formation exceeds in many cases its socially necessary size. It is often computed on the basis of lower

output quotas, a larger work staff, low product quality, and underutilized equipment. Reproduction of this fund inflates resources for remuneration of labor and this is repeated time and time again in the volume of cost-accounting income.

That is why, in our view, the original remuneration fund itself must be oriented toward socially necessary inputs of labor and material resources, i.e., must be based on the necessity of achieving the standard level of their utilization. This initial remuneration fund could be determined even before standard allowances for all types of resources are worked out by comparing certain consolidated indicators of resource utilization at a particular enterprise with the average indicators for the branch (or group of enterprises). The quality of the standard allowances as to the amount of labor can be determined by comparing the average level of quota fulfillment and also by comparing the ratio between the actual and normative size of the labor force of the enterprise and the branch (group of enterprises). Accordingly, at enterprises with a lower-than-average level of quotas one might exclude from the actual FOT all payments related to quota overfulfillment greater than the average progressive fulfillment and to maintaining an excessively large work force. What is more, the initial fund must be reduced by the amount of all nonproductive payments and any overexpenditure of wages that has occurred.

The level of utilization of materials and equipment and also product quality can be taken into account by adjusting the base remuneration fund with coefficients to that effect. A measure such as omitting from the base wage fund a portion or all of the relative saving related to nonfulfillment of delivery obligations would also have the effect of an incentive to fulfill the product delivery plan.

3. In the context of the orientation toward evaluation of enterprise performance with value indicators, we should anticipate a discrepancy in the dynamic behavior of the product produced with respect to value and labor intensiveness. That is why we have to provide schemes for formation of the FOT in which value and physical indicators would be combined. This dual approach to the mechanism of forming the FOT is predetermined by the dual nature of resources for remuneration of labor: on the one hand this is an element of cost included in the production cost, while on the other it is income realized in distribution of the newly added value.

Taking labor intensiveness into account in some form when resources for remuneration of labor are built up makes it possible, in our view, to link the size of the FOT more closely to the indicators of the volume of output in physical terms and the rise of labor productivity based on its real factors, and also to estimate the level of utilization of the production potential as a source of an additional labor saving.

EDUCATION

Draft Statute on Vocational-Technical Schools Published

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[Published under heading "Draft": "Statute on Vocational-Technical Schools"]

[Text]

Section I—General Principles

1. Vocational-technical schools are an important element in the continuous education system; they are state educational institutions charged with systematically training skilled blue-collar personnel, as well as with retraining and advanced training of workers for sectors of the economy.

2. Vocational-technical schools may be subordinated to:

- republican or local agencies of the State Committee of the USSR for Public Education;
- union or republican ministries (departments);
- state enterprises (amalgamations).

General, educational and methodological supervision of vocational-technical schools, regardless of their departmental subordination, is provided by public education agencies.

3. Vocational-technical schools may set up branches, which are structural subdivisions that operate on the basis of the Statute on Branches of Vocational-Technical Schools.

4. The organization, reorganization, and closing down of vocational-technical schools and their branches must be coordinated with the State Committee of the USSR for Public Education according to procedures established by Union Republican Councils of Ministers.

5. Vocational-technical schools are financed from the state budget, enterprise funds, or from cooperative funds of several enterprises, as well as from appropriations by ministries, departments, and local Soviets of Peoples Deputies.

6. Vocational-technical schools are assigned one or several enterprises which function as their base enterprises (amalgamations, organizations). In rural areas vocational-technical schools are, as a rule, incorporated in rayon agro-industrial amalgamations, which are their base enterprises.

7. Vocational-technical schools shall, as a rule, specialize in training skilled workers for a region's enterprises regardless of their departmental affiliation, on the basis of direct contracts with them, with priority consideration given to base enterprises.

8. Vocational-technical schools shall train skilled workers:

- from among graduates of secondary general educational schools;
- from among graduates of basic general educational schools, some of which may at the same time acquire a secondary education.

9. Vocational-technical schools may enter into contracts with enterprises (amalgamations, organizations) to provide theoretical training for apprentices on the factory floor.

10. Plans for the enrollment of young people in vocational-technical schools and the graduation of trained workers in specific trades shall be formalized and endorsed on the basis of direct contracts between vocational schools or local public education agencies with enterprises, as well as on the basis of state orders, taking into account the capabilities of school facilities and the student body.

11. Attendance of vocational-technical schools is free of charge. Vocational training courses (groups) can be organized for the training of individual citizens at their own expense.

12. Vocational-technical schools have the rights of legal persons.

13. Vocational-technical schools engage in all activities necessary for the training, retraining, and advanced training of workers; they also operate as enterprises engaged in other types of activity: production, providing paid services, etc.

14. Every vocational-technical school may draw up a charter on the basis of this Statute.

Section II—The Teaching/Educational Process

1. The Content of Education

1. Vocational-technical schools shall provide training, retraining, and advanced training of skilled workers in accordance with a list of trades based on job and skills descriptions contained in the Unified Job and Trade Ratings, as endorsed by the State Committee of the USSR for Public Education. Workers shall be trained in both complex, wide-ranging trades and in groups of trades for all economic complexes and sectors of the economy.

2. The initial database for determining the content of vocational school instruction are job and skills descriptions, which include the basic requirements for worker knowledges, skills and qualifications in their respective trades.

3. The scope of worker training, retraining, and advanced training is reflected in curricula and study plans, as well as in textbooks, study aides, and other documents endorsed by the State Committee of the USSR for Public Education for all vocational-technical schools, regardless of their departmental subordination.

II. Forms and Methods of Teaching and Education

1. Worker training, retraining, and advanced training is provided by vocational-technical schools in the form of day or night (shift) classes, on a full-time or part-time basis, as well as under home-study programs.

2. The teaching/educational process at vocational-technical schools is based on the principles of Soviet pedagogy and aimed at the communist education and all-round development of a student's personality and at fostering the future worker's professional skills.

3. The teaching/educational process includes theoretical and practical instruction, physical and initial military training, as well as extracurricular educational work with students.

4. Theoretical instruction is designed to assure firm mastery by the students of basic scientific, socio-political, economic, general technical, and specialized knowledge that would provide insights into the trends and prospects of scientific, technical and social progress and the development and operation of new equipment, flexible technologies and automated production facilities using computers and other state-of-the-art equipment, and the development of habits and skills of applying acquired knowledge in practice.

5. The basis of vocational training is hands-on instruction; it is provided:

—in apprentice workshops and laboratories, at training sites and school training facilities, as well as in study sections and shops, on fields and farms provided to schools by base and other enterprises with which contracts have been signed for training skilled personnel (including on a subcontract basis);

—directly on the factory floor with the purpose of specializing future workers in different trades and assuring that the students firmly master and consolidate practical habits and skills of efficient utilization of state-of-the-art equipment and technologies and the experience of production innovators;

—in the form of on-the-job practice at base enterprises, which concludes the vocational training course and has the purpose of helping students to attain the required level of professional skills and of assuring their social, psychological, and professional integration into the work collective of the given enterprise.

When organizing hands-on training, on-the-job practice, and socially useful productive work, students must be assured healthy and safe working conditions.

Hands-on training and on-the-job practice is supervised by the schools' vocational training instructors, with the students working as members of production teams, groups, or Komsomol-youth squads. During factory-floor training students are individually instructed by foremost workers, production innovators, and labor veterans. Students shall be given jobs corresponding to their trades and ratings (class, category) assigned on the basis of mid-course evaluations.

6. Socially useful, productive work is the primary means of vocational training and education of future workers during all stages of instruction. Independently or in cooperation with other educational establishments, enterprises or organizations, vocational schools may operate production-training or commercial production-training firms, amalgamations, public service establishments, hair salons, cafes, eateries, and other types of work associations of students and engineering-educational personnel for manufacturing social products or providing public services.

Products, labor and services offered by vocational schools shall be sold in accordance with the provisions and principles of Article 16 of the USSR Law on the State Enterprise (Amalgamation).

7. The basic form of instruction in vocational-technical schools is the lesson. At the same time, extensive use shall be made of lectures, seminars, colloquiums, practical classes, consultations, independent research and practical laboratory work, writing and presentation of reviews, field trips to enterprises and organizations, and other forms of active mastery of knowledge, skills and habits. Attendance of lessons (classes) by students is obligatory.

8. The types of study classes shall be established by the vocational schools' Methodological Councils, and instruction methods shall be determined by the teachers and instructors themselves based on the need for the fullest resolution of the tasks facing them.

9. The language of instruction in vocational-technical schools shall be determined in accordance with established procedures by the schools' councils according to the expressed wishes of the students and their parents. In this, extensive use shall be made of the opportunities provided by national-Russian bilingualism.

10. Ideological-political and educational work shall be implemented in close and organic unity with the study process, and it envisages close collaboration between educators, students, the schools' public organizations, parents, and personnel from base enterprises.

11. Vocational schools may sponsor amateur arts activities, sports and other interest groups, technical and artistic endeavors of students; they may conduct various out-of-class and extracurricular educational activities taking into account the students' interests and aimed at developing their talents and abilities.

III. Organization of the Teaching/Educational Process

1. The study year of vocational-technical schools (for daytime classes) shall, as a rule, begin on 1 September and end not later than 1 July. Depending on specific conditions, school councils can, by agreement with local boards of public education, change the starting and end dates of the study year for the entire school or individual groups, while abiding by youth labor and recreation legislation.

2. The study load of vocational-technical school students shall, as a rule, not exceed 36 hours a week, or 6 hours a day with a six-day week. Total holiday time during a study year shall be not less than 8 weeks.

It is forbidden to suspend classes during the study year for agricultural and other work not connected with the teaching/educational process, as well as for any duty or public assignments, participation in amateur arts, sporting or other activities.

3. Home assignments are not required. When they are given, total time for doing them should not exceed two hours.

4. Classes in theoretical subjects shall be conducted in groups of 25-30 students. For foreign language lessons, laboratory practice classes on the principles of computer software and hardware, as well as for instruction in a number of other subjects, school groups of more than 25 students shall be broken down into two subgroups.

For groups of not less than 25 students, of whom not less than 8 are of the same sex, physical training classes shall be conducted separately for men and women.

Hands-on instruction in all trades shall as a rule be provided in groups of 12-15 students.

5. Students' knowledges, skills and performance shall be rated according to a three-grade system: 5 (excellent), 4 (good), and 3 (satisfactory). Students who have failed to master the program receive no credits.

During the course of instruction, vocational-technical school students shall be evaluated on an annual mid-term basis; the results of such evaluations will be used,

where possible, to assign job ratings (levels, categories) corresponding to the level of vocational training attained at the given stage; on completion of the course students shall be given graduation proficiency tests.

6. Students with excellent grades in all or some subjects may be exempted from mid-term tests in those subjects.

Vocational-technical school students with unsatisfactory grades in individual study subjects or hands-on training, as well as students who have earned no credits for the study year, shall be given the opportunity to take new tests in those subjects within deadlines set by the school council. For this, the necessary conditions shall be created, and students shall be given adequate educational help, including in the form of consultations, remedial classes, etc.

7. Graduation proficiency tests are open to all vocational-technical school students who have completed the full study course and have favorable final grades in all subjects and in hands-on training.

8. The procedures for passing students to the next year and for conducting graduation proficiency tests, as well as for assigning job ratings (categories) shall be established by the State Committee of the USSR for Public Education.

Section III—Vocational-Technical School Students

1. Enrollment in vocational-technical schools shall be conducted in accordance with regulations approved by the State Committee of the USSR on Public Education.

2. Vocational-technical school students shall be issued a student's card and a student's social-labor progress passport as approved by the State Committee of the USSR on Public Education. The social-labor progress passport records the most significant practical events in study, work and public life.

3. Material support provisions for vocational-technical school students are established by the USSR Council of Ministers. Students are provided with free dormitory facilities for the duration of the course.

All work involving the manufacture of useful products by students in the course of hands-on training and on-the-job practice shall be remunerated according to operating norms, rates, and pay scales (salaries), taking into account an established discount factor, additional wage payments and bonuses.

For work performed during hands-on training and on-the-job practice, vocational technical school students of agricultural, water management, and forestry/trapping trades shall be paid 75 percent of the money earned at practice facilities, and students of other vocational

schools shall be paid 50 percent of the earned sums. The balance of these funds shall be retained at the disposal of the vocational school to be used under established procedures.

Remuneration for exceeding production norms and bonuses shall be paid to on-the-job practice students in full.

4. Medical services for students are provided by clinics, health offices and other medical-prophylactic establishments assigned to the vocational schools; they shall conduct regular physical examinations, disease prevention and sanitary/hygiene health protection measures.

5. Students of vocational-technical schools with night (shift) instruction shall enjoy additional benefits established by existing legislation.

6. Vocational-technical school students are entitled:

—to use of the school's training and production facilities, as well as the production, sports, cultural, enlightenment, and other facilities of the enterprises for which the school is training personnel;

—to take their graduation proficiency tests ahead of schedule, provided this is warranted by the results of mid-term evaluations;

—to participate in the resolution of questions involving school affairs, elect and be elected to school collective management boards;

—personally or through their representatives on administrative boards, to forward questions to those boards or to the school management on any issue pertaining to the school's life, and to expect an appropriate response;

—to voice their views and assessments on various aspects of school activities, submit suggestions on improving its work, and see that they are implemented;

—to join primary organizations of various societies, interest clubs and other public associations which facilitate the development of political and ethical standards and the desire for creativity, intellectual and physical improvement in young people;

—to participate in productive, socially useful work in study shops and as members of work associations (including those operating on a cost-accounting basis), and in the distribution of income, wages and bonuses; to submit rationalization proposals.

Vocational-technical schools are responsible to society and the state for protecting the individual rights of students and for their public defense.

7. Vocational-technical school students must:

—prepare themselves for honest, highly productive, creative work and strive to become worthy reinforcements of the ranks of the working class and kolkhoz peasantry;

—systematically and thoroughly master knowledge of basic sciences and professional skills, develop their talents, foster within themselves the ability to independently supplement their knowledge and apply it in practice, unwaveringly maintain study, labor and production discipline, sanitary and labor safety requirements, and the school's schedules and regulations, and actively participate in the life of the collective;

—contribute, to the extent of their abilities, to strengthening the national economy by participating in socially useful, productive work;

—protect and enhance socialist property, protect the environment and multiply its wealth;

—abide by the principles of communist morality, lead a healthy life style, refuse to tolerate any anti-social behavior, care for their health, engage in sports, prepare for the defense of the socialist Fatherland.

8. Disciplinary action stipulated in school charters may be applied to students for systematic failure in grades, flagrant violations of rules of internal order and behavior, and missing lessons without sufficient reason. In cases of deliberate damage of school property the cost shall be reimbursed by the guilty party as provided by regulations.

9. Graduates who have mastered a trade and have general secondary education shall be awarded a diploma of the established type. Those who have finished vocational school but do not have general secondary school education shall be awarded a certificate of completion of the school and mastery of a trade. Graduates who have studied in trades associated with work at facilities supervised by special organizations and departments shall receive, together with a diploma (certificate), an authorization to work at such facilities.

Job proficiency ratings or categories given to vocational-technical school graduates shall be recognized by all enterprises (amalgamations, organizations) and cannot be reduced at hiring.

Vocational-technical school graduates who have an overall "5" grade in vocational training and at least 75 percent of the other curricular subjects, at least a "4" grade in the other subjects, have received a "5" grade in their proficiency tests, and have been active in social work are issued a cum laude diploma (certificate).

Graduates who have acquired a general secondary education in the vocational-technical school and scored special achievements shall be awarded a gold medal along with the diploma.

10. Vocational-technical school graduates issued cum laude diplomas (certificates) shall be given preferential consideration in job placement.

11. People graduating from day vocational-technical schools shall be offered jobs in accordance with their acquired trades and ratings by the enterprises (amalgamations, organizations) for which they were trained under contracts.

12. Graduates from day vocational-technical schools who studied there 10 or more months are entitled to vacation time during their first three months on the job; those who studied less than 10 months are entitled to vacation time prorated for the time spent at school.

13. In accordance with corresponding legislation, the time spent attending a vocational-technical school is included in a person's total work record and continuous work record.

Section IV—Engineering-Educational Personnel of Vocational-Technical Schools

1. Vocational-technical schools have the following engineering-educational staff positions: Master of Production Training, Instructor, Educator.

2. Appointment and dismissal of vocational-technical school engineering-educational personnel is done by the school director in accordance with existing labor legislation and taking into account the opinion of the school council.

With the purpose of further improving the selection, education and advanced training of vocational-technical school engineering-educational personnel, they shall be periodically certified in accordance with procedures established by the USSR Public Education Committee.

3. Vocational-technical school engineering-educational personnel have the right:

—to take part in discussing and resolving important questions of vocational-technical schoolwork and participate in conferences, discussions, and methodological commissions;

—to formulate and submit proposals on improving school instruction, educational work, and methodologies;

—to elect and be elected to collective school management boards.

4. Vocational-technical school engineering-educational personnel must:

—display high professional standards in educational and methodological work;

—supervise the ethical, scientific atheistic, legal, patriotic, and internationalist education of students and foster in them the best qualities inherent in the contemporary working class;

—maintain the humanistic principles and norms of professional ethics of an educator;

—carry out educational work among the population.

5. The tasks and functions of vocational-technical school engineering-educational personnel their rights and duties are determined by the relevant personnel instructions approved by the USSR Public Education Committee.

6. In the conditions of continuous education, vocational-technical school engineering-educational personnel must, working on either a full-time or part-time basis within the current system of advanced training and retraining of personnel, systematically raise their ideological and theoretical standards, professional qualifications and pedagogical skills.

Section V—Financing and the Material-Technical Base of Vocational-Technical Schools

1. Vocational-technical schools shall conduct their fiscal activities in the framework of estimates of expenses for training, retraining, and advanced training of workers, and for the maintenance of the school and its subdivisions; these expenses shall be covered from:

—State budgetary allocations;

—funds received as reimbursements for training, retraining, and advanced training of personnel;

—bank credits;

—the schools' own funds;

—funds provided by cooperative organizations;

—voluntary donations from sectors of industry, enterprises, organizations, and individuals.

2. Estimates of expenses shall be endorsed by the agency supervising the vocational-technical school as a lump sum, identifying only the wage fund and scholarship fund.

3. Annual budgetary allocations are fully at the disposal of the vocational-technical school and cannot be expropriated. Unused (saved) assets of the cost estimates (with the exception of food expenses) shall, at the discretion of the school council and management, be placed in a fund for strengthening the material-technical base and social development and deposited on the school's current account. Payments shall be made by purchase orders or bank checks.

4. The material-technical base of vocational-technical schools includes buildings and structures, land, equipment and other facilities, as well as visual, technical and other study aides, and computer hardware.

Standard norms for the equipment of educational production shops and sections, field facilities, educational equipment, study rooms and laboratories shall be approved by the State Committee of the USSR for Public Education.

5. Construction, maintenance and technical re-equipment of the material-technical base and social-cultural facilities of vocational schools shall be financed by the base enterprise, as well as through cost accounting.

6. Supplies of modern equipment, machines, mechanisms, vehicles, agricultural and land-improvement machinery, spare parts, fuel and lubricants, fixtures, measuring instruments, cutting and other tools, and power for vocational-technical schools, as well as the maintenance of their buildings and equipment shall be financed by base enterprises from their own funds. Base enterprises, as well as organizations enterprises and agencies for which vocational school train skilled personnel on the basis of sectoral and interdepartmental cooperation, shall provide the schools, free of charge, with premises, necessary equipment, machinery, instruments, tools and materials for both instructional purposes and for fulfilling orders of the base enterprise in the course of hands-on training.

7. Buildings, structures, equipment, material and other property belonging to vocational-technical schools shall be used only for their specific purposes.

8. Moneys from the fund for strengthening the material-technical base and social development shall be spent according to estimates approved by the vocational school council and director for developing the material base, conducting mass cultural, health and sporting events, payment of bonuses to employees and students, rendering material assistance to students, etc.

9. The vocational school council and director are authorized to invite any government organizations or enterprises, cooperatives or private persons on a contractual basis to help resolve questions of strengthening the material-technical base and social development.

10. In the area of remuneration for work, vocational-technical schools shall:

—approve authorized school staffing and set salaries in accordance with operating schedules, without adhering to average salaries; introduce salaries for educational personnel according to differential pay schedules taking certification results into account; regulate the number of employees within the constraints of the wage fund;

—within the approved wage fund, and according to procedures stipulated in current legislation, pay various supplemental allowances to employees and award bonuses on the basis of ultimate results and the quality and effectiveness of their work; employ piece-rate, job-rate, team, contractual and other forms of labor organization and incentives;

—offer supplementary pay for combining professions (jobs) and also make additional payments for filling for absent employees while performing one's basic job, under conditions stipulated in current legislation.

11. Vocational-technical schools shall maintain their books, files, bookkeeping and statistical documents and report on their work to superior agencies.

Section VI—Management of Vocational-Technical Schools

1. Vocational-technical schools shall be managed on the basis of combining centralized supervision with the school's independence and self-management by the collective in accordance with Articles 6, 7, and 8 of the Law on the State Enterprise (Amalgamation).

2. The highest body of school self-management is the Conference.

Voting delegates shall be elected to the Conference by meetings of students, school personnel, representatives of base enterprises and the public, with an equal number from each of the aforementioned groups.

The Conference shall:

—elect by direct, secret ballot a school council, its chairman, and the school director, who must be endorsed by the superior public education agency;

—adopt the School Charter;

—define the basic areas of school improvement and development;

—coordinate the activities of the school, enterprises, and the public aimed at improving the school's work.

The Conference shall be convened not less than once a year.

3. In the period between conferences the role of highest body shall be performed by the School Council, which:

—monitors the fulfillment of conference decisions and the implementation of proposals and critical comments by members of the school collective;

—together with the director, represents the school's interests before state and public agencies; plans the school's development;

- establishes operational schedules (duration of study week and classes, system of grading progress, students' dress code, etc.); if necessary, by agreement with the local Public Education Council, changes the dates of commencing and ending the study year and of vacations;
- draws up a list of trades in which the school provides training, plans enrollment and graduation, and of types of trainee-production jobs;
- establishes procedures for certifying school engineering-educational personnel; makes proposals on awarding qualification ratings to teachers and instructors; nominates educational and other school personnel for government awards and departmental bonuses from school funds;
- supports public initiatives aimed at improving and developing youth teaching and education;
- sees to the rational spending of budgetary appropriations; establishes a school fund using various financing sources; assures centralization of resources for tackling long-term problems of school development;
- considers reports on the work of individual engineering-educational personnel, the school director and his deputies, submits proposals on extending or terminating their tenure, as well as on improving their work;
- determines the feasibility of forming cooperative and other production associations of students;
- takes necessary steps within the framework of current legislation to protect engineering-educational personnel and the school management from unwarranted interference in their professional and administrative activities;
- considers reports by managers of base enterprises on fulfilling their commitments with respect to the school.

4. The School Council shall include representatives of:

- engineering-educational personnel;
- students;
- parents, the base enterprises and the public, with one-third elected from each of the aforementioned groups.

The size of the Council is stipulated in the School Charter. At scheduled elections Council membership shall, as a rule, be renewed by at least one-third.

The School Council shall convene not less than four times a year.

Council members perform their duties as a public service.

Decisions of the School Council shall have legal force if voted for by not less than two-thirds of the members present, provided representatives of all three groups of Council membership were present.

Council decisions adopted within the framework of its authority and in accordance with current legislation are obligatory for the management and all members of the school collective.

Members of the School Council can request the discussion of any issue, provided such a request is supported by one-third of the Council membership.

5. Management of school activities is supervised by the director.

The school director:

- plans and organizes the teaching/educational process, monitors it and its results, and is responsible for the quality and effectiveness of the school's performance;
- selects deputies and defines their duties, assigns the school's engineering-educational personnel, appoints class supervisors with due account of the opinions of students and parents; hires and dismisses engineering-educational, administrative, auxiliary educational, and service personnel;
- is responsible for labor safety and safety engineering;
- ensures fulfillment of contractual obligations to enterprises for training skilled workers;
- creates conditions for the creative advancement of the school's engineering-educational personnel, for them to apply progressive forms and methods of work, and for the performance of pedagogical experiments;
- organizes training-production activity of students, assuring high quality of output, work and services;
- organizes thrifty use of allocated funds and the school's own funds;
- answers for his work to the School Council and the local Public Education Council.

6. With the purpose of developing and improving the teaching-education process, enhancing the professional skills and creative growth of engineering-educational personnel, schools shall set up Methodological Councils as collective bodies serving engineering-educational personnel.

The Methodological Council discusses and selects variants of educational material (study plans, curricula, textbooks, etc.), forms and methods of the teaching/educational process and methods of implementing them,

organizes efforts to raise the proficiency of engineering-educational personnel, develop their creative initiative and disseminate advanced experience.

The Methodological Council can set up topical and other sections, associations, etc.

The chairman of the Methodological Council is elected by the school's engineering-educational personnel.

The procedures and schedules of functions of the Methodological Council are defined in the School Charter.

7. Trade Union and Komsomol organizations can be formed at vocational schools and function in accordance with the AUCCTU and Komsomol charters.

8. Various voluntary societies can establish primary organizations in schools and function in accordance with their charters and rules.

9. Other public bodies of student co-management may also be organized in vocational-technical schools.

10. In the interests of carrying out the tasks facing them, vocational-technical schools can make use of international ties to study foreign experience in training, retraining, and advanced training of workers, advanced training of engineering-educational personnel, cooperation in the development of progressive methods of teaching and acquiring practical skills, and strengthening international ties between peoples.

ORGANIZATION, PLANNING, MANAGEMENT

Writer-Machinebuilder Looks at Issues From
Workers' Viewpoint

18230011a Moscow SOTSIALISTICHESKAYA
INDUSTRIYA in Russian 20, 21 Sep 88

[Article by Viktor Lyakhovichuk: "What Can Be Seen
From the Machine Tool"]

[20 Sep 88, p 1]

[Excerpts] The name of Viktor Lyakhovichuk, a boring-machine operator of the Lvov Association imeni 50-Letiye Oktyabrya, is well known to our readers. He grew up in Argentina where he went as a small child with his parents who were seeking their fortune overseas. During the 1950's the family returned to the homeland, the Soviet Union. Viktor became a worker, although having completed a specialized educational institution in Argentina which trained managers, he could have applied for a management position. This metalworker with a high class rating frequently takes up his pen to discuss what he has seen and experienced. But a memoir writer is the last thing he is. He is excited about the new life, the present day of restructuring.

In our time, a time of the mastery of cost accounting, the figure of the economist comes to the fore. He predicts, pushes new levers, teaches, and develops the model of fair payment for our labor. But I get the impression that the restructuring has caught the economists unawares.

The chief of the department of labor and wages of a large association speaking to the workers declares:

"The system of piece-rate labor is at this moment the most progressive since it stimulates a growth of productivity and at the same time makes it possible to keep the wage fund under control."

Another economist, a person with a high scholarly title, on the pages of a central newspaper calls for "removing the ceilings." Let each person earn as much as he can. I understand that this is an attempt to assert the basic principle of socialism: to each according to his labor.... But, after all, we know that this principle has been violated everywhere over the past decades.

In passing an economist cast a reproach against the workers because, they say, we have "fallen outside the field of criticism," and this ends up in slipshod work, greediness, failure to fulfill deliveries, and so forth.

I can say for myself that I do not agree with either the first or the second economist.

Piece-rate wages for the creative professions and for workers employed in complicated and precision production cannot be progressive because they direct us not toward quality but toward quantity. And quantity will not enable us to catch up with our capitalist competitors in the international arena.

Wage control as it is usually understood now can even look good on paper, but in practice it is the usual shaving down of earnings which leads to equalizing and to devaluing high-quality labor. In modern production a "ceiling" is nothing other than correct engineering and economic calculations which cannot be violated without violating the rhythm of production itself.

In working at an enterprise I had to process the housings for lathes. Three housings a shift. The assignment was calculated so precisely that one could not get away from the machine tool. Only a composed, highly skilled worker could withstand the strain. And he received high wages. And the differences in earnings at various enterprises were extremely small. This is a "ceiling" for you and a basis for high productivity.

But what do we have? The discrepancies in the norm setting for labor are alarming. I consider it inadmissible that a Leningrad boring-machine operator works according to certain norms, one in Moscow according to others, and one in Lvov according to still others.

As we know, it is better to speak with economists in a language of figures and not emotions. Therefore I shall give some figures I learned about as a worker correspondent at one of the large Lvov plants. By the fault of the workers during the past quarter defective work amounted to 18.7 percent, because of mistakes in the design blueprints—12.7 percent, because of the imperfection of the design itself—28.2 percent, and by the fault of the technologist—11.6 percent. Pay attention: engineering and technical personnel are to blame for more than half of the defective work.

I met our new foreman, A. Vasilyev, before he came to the boring-machine section. I remember that these ideas of Aleksandr Nikolayevich: "We still have cases of defective work and each case creates additional difficulties. Look at the blueprint. It would seem that everything is correct: the dimensions are there. But there is no unified point where it all comes together, no base. The worker must calculate from right to left one time and from left to right another time. His attention strays, and time is lost. The designers do not take this into account. And they should. The simpler the blueprint, the less the probability of defective work. It would be good if there were periodic meetings between instrument workers and designers. Both sides could present their complaints. The overall cause would stand to gain from this. We have experience. When we made the fittings for a new model of stereo phonograph we worked in close contact with the designers. And we did not have a single case of defects during a month of very hard work."

I presented the business proposal of this intelligent man and excellent foreman in the plant newspaper. And what happened? It remained a voice howling in the desert. And after the article appeared in the newspaper the same idea was brought up in the shop at the party meeting in the presence of officials of the association. Why did the engineer's idea not catch on? Why do certain designers go so far that they themselves cannot figure out their own blueprints? Why is the designer indifferent to how much the part that will be made from his blueprint will cost?

I shall try to explain with an example. A pusher in a press form is needed to push out the solidified part. On the reverse side of the matrix there is to be a cone in an opening so the pusher can enter freely. For several years now there has been a struggle revolving around this cone. The workers prove (pay attention—the workers) that the cone must be unified. But the designers will not have it. We struggled and struggled and finally found a brilliant solution. It was so brilliant it was absurd—we submitted an efficiency proposal which will make it possible to use old cutters instead of reamers. There was no longer any need to manufacture special reamers and there would be a savings on metal and working time. And we are all pushing the idea of unifying the sizes of the cones as well. We succeeded! But tell me please who needs these zigzags? Nobody. It is simply that nobody paid any attention to advantage, profitability, or profit.

We have many intelligent people at the plant. But there is no efficient system which would force the people to consider and save the kopeck, the work minute, to grasp onto the advantage of one innovation or another.

I am deeply convinced that the weak place in our production is management. The weakness of engineering and technical personnel and the management staffs of our enterprises leads to a situation where they become dependent on highly skilled workers who cover their errors with their labor. In turn, this situation corrupts the workers themselves and creates conditions for impunity since relations in production develop so that people look out for one another without respect to the overall result.

It seems to me that many managers end up in a kind of vicious circle: some of them do not get out, blaming their low wages, and they are not paid more because, honestly speaking, there is nothing with which to pay.

I observed the kind of fuss that started among the engineering and technical community when articles about the Leningrad experiment appeared in the newspapers. The workers welcome these measures. We think that this is the only way to bring order into these offices that are teeming with people.

We also welcome the delimitation of the very concept of engineering and technical worker. For many years it has been impossible to know who is whom behind this title.

Engineering and technical personnel can include talented technologists and girls who simply transcribe technology. The division of engineering and technical personnel into specialists and employees is a prerequisite at the enterprises for social justice since justice begins with order.

[21 Sep 88, p 1]

[Excerpts] The foreground in production collectives now is the figure of the leader of the lower level—the brigade leader. A great deal depends on him. It would seem that everybody understands this. But in practice the selection and placement of these personnel are done haphazardly. And those who are supposed to select and place them are not always concerned about their own authority. For example, we have a brigade in which a member, referring to public work (for a certain amount of time he performed the duties of secretary of the shop party bureau) did not carry out his production assignment. Some of his work was transferred to a different section, which produced a lot each month. Is this right? And is it not for this reason that we so rarely see in the position of secretary of the shop party bureau or chairman of the shop committee a highly skilled worker who cannot be placed in the brigade? This situation cannot but be reflected in the militancy of the lower party and trade union organization.

...I turn on the television. On the screen is a worker who is running three planing machines at the same time. This fact seems heroic. But I, again from today's viewpoint, think: of course the worker is conscientious, but.... A modern milling machine equipped with a hard alloy instrument is 10 times more productive than a planer and consumes approximately the same amount of energy. If one adds to this the fact that the milling machine takes one-third the space that a planer does, it becomes clear that instead of heroism we are seeing elementary bungling. It is time for the enterprise to engage seriously in the introduction of advanced equipment and not count on the enthusiasm of a conscientious worker.

Retooling is in progress. In our shop, for example, electrical discharge machines have made it possible to double labor productivity. All this is good, but we note that for some reason the progressive equipment is not leading to a reduction of the work places. For on the contrary, they are coming to be more people. The fact is that the workers have not been trained either to write programs or to adjust them. As a result, the percentage of service personnel has increased because the machine tool operators are only able to push the buttons, and for everything else they run to the programmers. In my opinion, such organization of the work eats away a significant share of the advantage from the introduction of new technical equipment and deprives the worker of the possibility of working creatively.

Previously perhaps I would not have paid any attention to this fact: let the management think about it. But now the brigades are demanding reorganization of the electrical discharge sections since excessive expenditures affect the indicators of the collective.

We all understand that we cannot do without new, highly productive equipment. But we cannot allow a situation where the technical equipment is introduced for its own sake. It must produce a return. And as quickly as possible. The brigades are vitally interested in this, and here their interest corresponds fully with that of the state.

Much is also changing in the conditions for brigade labor. But so far the changes are taking place within the brigades themselves. A paradoxical situation arises: where does this overfall come from? And one comes to the conclusion that many of the managers are living at our expense and thus they are causing both to us and the society as a whole not only material but also a great deal of moral harm.

The intolerability of such a situation becomes especially crucial right now when self-recouptment is being transformed from an idea into daily practice. And, of course, it is not that the intensiveness of the labor of the workers is increasing, but for the bureaucrats there is an increase in "...earnings. I think that the development of the brigade contract is impossible without restructuring the work of the entire enterprise. We are waging a merciless battle against all kinds of bullies and idlers in the working environment, but this purge must be carried out at all levels of production.

I should like to say something else about one aspect of the matter—the lack of unified principles in the organization of brigades.

There is still a good deal of primitive work and confusion here. For example, in our section the brigades were formed randomly, without a clear idea of how they were to work and how best to coordinate labor and earnings. There were incorrect decisions and interruptions. Certain workers wanted to retain in the brigades that which they like so much with piece-rate work—the desire to get the biggest pieces of cake. And this gave those who did not believe in the brigade method cause for gloating: they say the fashionable brigades are nothing other than "a changeover from individual greed to collective greed."

Seeing a complicated process behind this, certain managers have decided to simplify it and have begun to model the brigades through orders. Each one has acted according to his own vision. For example, in the press-form section a youth brigade was created for manufacturing conducts and adapters. And this was simply because the experience workers did not want to work with such small stuff.

Even if random creation of brigades is no better, here at least the leader is not appointed but is elected by the workers themselves, and they are rarely wrong. But a brigade that appears on order is also given its leader through an order. This is what happened in the youth collective. The person appointed brigade leader was one of the "bright" chaps. Soon he showed his true colors. He brought to work certain items that are in short supply and began to make money from them. This caused no disturbance. The brigade was disturbed about something else—it was being given disadvantageous work. But when it was given advantageous work the boys were not good enough to do it. Having worked for about a year the brigade developed well and the idea of the brigade method in the section had been compromised for a long time.

At certain enterprises in Lvov they have decided to create brigades according to "organizational plans." In one of the plant newspapers I read: "At the present time we cannot simply point out the paths to improving brigade organization of labor. But if we approach the issue correctly it is possible to find a unified approach to the problem. This is the organizational plan."

The principles of the planning are clarified subsequently. For example: "Improvement of planning utilizing automation both in analyzing the activity of the brigades and in calculating earnings." Obviously, they are speaking about the overall earnings of the brigade since, in my opinion, no automation can determine the personal contribution of each worker to the overall success of the collective. And another thing: "To inform the public of the results of the brigades' work." And this is one of the main principles of socialist competition. What is new here? Other points of the organizational plan are equally unclear and diffuse. But the figures are concrete: for the initial organizational plan the enterprise spent 300 man-days. The new variant, the newspaper announces, will require from 800 to 1,000 man-days.

It seems like we are still trying to reinvent the wheel and spending money and energy in order to create "our own."

But sometimes we copy one phenomenon or another without taking the trouble to delve into its nature. At one time on television one could see rooms for psychological relaxation in Japanese enterprises, and many of our enterprises immediately began to introduce such rooms. But why does the Japanese worker need psychological relaxation? When I worked at the firm Philadelphia we were given strong coffee right at our work places. The stimulating effect of caffeine is generally known, and without this "effect" we would not be able to keep up with the conveyor.

We introduced our own relaxation rooms. But the dinner break was still a half hour. A person stands in line for 15 minutes, spends 10 minutes eating and spends 5 minutes getting ready to get back to work. When is there time to

"relax." I seem to recall a case where a person halted his machine and told the foreman: I am going to the room for psychological relaxation. And I have never met any women who would run to these rooms before standing in line for sausage. And yet I have seen how literally from month to month fitters, polishing machine operators, assembly workers, and other workers stand idle waiting for work.

I was an adolescent when the first Soviet industrial exhibition took place in Buenos Aires in 1947. I recall the interest with which the visitors looked at the displays. The specialists were interested in models of our petroleum extraction equipment. They were attracted by

the durability and reliability of our technical equipment. They also noted defects in the external appearance. But that was forgiven for the sake of the main thing—reliability.

It is strange that 40 years ago, only 2 years after the end of the war, the work of the Soviet people was valued highly. After the exhibition much Soviet technical equipment was in operation in the construction of Argentine roads.

I am convinced that we are capable of restoring the authority of the Soviet name, all we need to do is impose order at home.

PRODUCTION

Need For Metal Conservation in Machinebuilding Stressed

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[Article by A. Kamenev, 1st deputy chairman of the Bureau of Machinebuilding of the USSR Council of Ministers: "Problems and Methods for Conserving in the Use of Metals in the Machinebuilding Complex"]

[Text] As one of the country's large consumers of metal, the machinebuilding complex plays an important role in resource conservation and in lowering the metal-intensiveness of national income.

The principal trends for the economic and social development of the USSR for the 1986-1990 period and for the period up to the year 2000 call for a 75-80 percent increase in the national economic requirements for fuel, raw materials, energy and materials through savings being realized in their use. For a number of reasons, this has turned out to be a difficult task.

In 1987, the enterprises of machinebuilding processed 53.6 million tons of ferrous metals, including 24 million tons of rolled metal (approximately 21 percent of the production). In the process, 14.9 million tons were used for waste products, with 6.9 million tons (46.4 percent) of this amount being in the form of chips. There was

almost no decline in the proportion of waste products compared to 1985. For some ministries, the proportion of chips exceeds to a considerable degree the average branch volume: in machine-tool manufacture it is 67 percent and in chemical and heavy machinebuilding—57 and 54 percent respectively.

Thus, today the machinebuilding complex does not occupy a leading position in the area of resource conservation. At the same time, opportunities are still available for solving this task.

Thanks to successes in the area of material management in recent years in international practice, the use of new construction materials is increasing rapidly—polymers, composites, ceramics and others. They surpass metals in terms of their specific strength and hardness, stability under high or low temperatures, resistance to fatigue breakdown and other properties.

Work concerned with the creation of new materials is being carried out in all industrially developed countries, including in the USSR. These materials are making it possible to realize qualitative improvements in the technical level in all machinebuilding products and also in lowering metal consumption in the creation of machines.

The following table provides data on the present and future status in the production of construction materials (excluding aluminum) by the year 2000 in the USSR and the U.S.A.

	USSR		U.S.A.	
	1987	2000	1987	2000
Steel	161*/*6	162-170/90-85	79.3/80	71/66
Polymers, composites, ceramics and others	6/4	17-18/ 10-15	22/20	36/34

*In the numerator—millions of tons, in the denominator—per cent of the overall volume.

It is apparent from the table that, despite the extensive introduction of new materials, steel still occupies a dominating position, especially in our country. Large-scale studies on the use of construction materials on a metal basis, carried out in recent years in the FRG, also serve to confirm this particular trend. Thus, the principal task of resource conservation over the next 10-15 years will continue to be that of economizing in the use of ferrous metals.

At the present time, a long-term all-round program for lowering the metal-intensiveness of the national income is being carried out in our country. The "Ekonomiya" branch programs for the 1986-1990 period, which include measures for reducing the consumption of the principal types of metal products, constitute the first stage in the carrying out of this program. Compared to

1985, the programs call for a reduction in metal consumption of 1 million rubles worth of marketable machinebuilding products and in metal working—a reduction of not less than 26 percent.

The principal trends concerned with realizing economies in the use of material resources in accordance with these programs are aimed at improving the basic technologies, mastering new ones, improving the designs for equipment in production, using rolled metal of improved quality and economic shapes, expanding the use of substitutes for rolled metal and also increasing the use of secondary metals in production and raising the efficiency of metal consumption for the various machinebuilding requirements. This is the true path to be followed and yet we cannot fail to note the complex nature of the tasks which must be solved in order to achieve the planned twofold reduction in the metal-intensiveness of

national income. The chief tasks include improving the technical status of the machinebuilding products and the technology employed for producing them, introducing new forms for production organization which will ensure the thrifty use of resources and improving control over resource conservation at all levels.

Meanwhile, our domestic machines and equipment are distinguished by a high level of metal-intensiveness. Our trucks are inferior to American trucks in terms of their weight parameters (or functional metal-intensiveness) by an average of 16 percent, agricultural machines—by 30 and equipment for the light and food industry—by 20-30 percent. Thus the scales for the tasks are considerable. In accordance with the all-round program, the specific metal-intensiveness for machinebuilding products must be lowered by 25-30 percent by the year 2000.

There is reason to hope that by the beginning of the 1990's ferrous metallurgy will be producing a number of types of rolled metal having strength properties that will be 20-25 percent higher than that being produced at the present time and that the assortment of progressive types of metal products will be expanded. Considerable importance is being attached to raising the effectiveness of use of this rolled metal through the application of modern methods and engineering computations for strength and efficiency when designing parts, units and products on the whole. One can make a judgement concerning the amount of available reserves based upon the fact that in accordance with the conclusions drawn by USSR Minyazhmash [Ministry of Heavy and Transport Machinebuilding] and USSR Minavtoprom [Ministry of the Automotive Industry] specialists, an improvement in the methods for computing and validating a reduction in the strength reserves is capable at the present time of producing a reduction in the weight of equipment by 6-15 percent. The realization of these reserves constitutes an urgent task of the scientists and designer-machinebuilders.

One other large reserve for economizing in the use of metal is that of repeated expansion in the use of construction plastics in machinebuilding. An important question in achieving economic consumption of metal is that of selecting materials for the development of new products.

The exhibit entitled "Resource Conservation-88" has revealed some improvements in this regard. New developments presented during this exhibit (for example, a metal-plastic turbine turbo-drill, plastic parts for a fan, a deep ripper fertilizer, mono-cyclones for tractor engines, metal-polymer sprockets for the chain transmissions of agricultural machines and pistons with plastic hubs) testify to the fact that the machinebuilders are making greater use of these materials not only for unstressed parts such as caps and flanges, but in addition they are making more bold use of complicated parts which are employed under conditions involving deterioration and

impact loads. The introduction of such developments is reducing the metal-intensiveness of a number of parts by 25-30 percent and it is raising durability and lowering labor-intensiveness.

Approximately 25 tons of metal are consumed annually for the repair of machines and equipment and for the production of spare parts. This is the so-called operational metal intensiveness. At the present time, it is almost twice as high as that in other developed countries. The solution for this situation lies in raising substantially the reliability of the machines and equipment.

There are also other problems. The machinebuilders are constantly experiencing shortages in connection with such highly efficient materials as thin-sheet electrical steel with especially low specific losses for power transformers, curved shapes made out of low-alloy steel of raised strength, steel with coatings of zinc, aluminum and their alloys and other steel and non-metal materials.

However, it must be recognized that a portion of the guilt for the mentioned shortages rests with the machinebuilders themselves, who up until now have only weakly concerned themselves with those problems associated with the creation of modern equipment for the production of progressive metal products. In addition, they are not satisfying fully the needs of allied branches and they are only slowly introducing metal-conserving technologies into operations, especially in procurement production operations.

The branch programs for resource conservation call for substantial improvements in these directions. A considerable expansion will take place in the use of such progressive technological processes as cold stamping, extrusion, various milling methods, caulking, obtaining products using the method of powder metallurgy and others. During the 12th Five-Year Plan, part-rolling mills developed by VNIImetmash [All-Union Scientific Research, Planning and Design Institute for Metallurgical Machinery] are to be introduced into operations at eight machinebuilding enterprises.

At the present time, with resource conservation being ranked among the more important tasks, the branch science must conduct an "inventory" of accumulated technological experience, so as to ensure that all useful undertakings are directed towards solving those internal and inter-branch problems which are restraining the development of machinebuilding.

A large-scale trend in resource conservation is that of expanding the use of secondary resources. At the present time, USSR Minstankoprom [Ministry of the Machine Tool and Tool Building Industry] is developing a branch systematized summary of information on secondary raw materials which USSR Gosnab will include in an all-union summary. The plans also call for the creation at 90 enterprises of sectors for the briquetting of steel and cast iron shavings and centralized scrap sorting sectors for

the processing of steel and cast iron lump waste materials for use at other branch enterprises. This will make it possible to reduce the purchasing of scrap materials from 45.8 to 16.3 percent and the deliveries of such materials to Vtorchermet (State Trust for the Procurement and Processing of Secondary Ferrous Metals) from 62.4 to 23.1 percent.

The existing structure for supplying plants of the machinebuilding complex with metal and metal products is not in keeping with the requirements of the times. Modern machinebuilding, which is characterized by an increase in the flexibility and multiple nomenclature nature of production, is experiencing greater difficulties in the supply of metal, which is being produced for the most part by giant metallurgical plants oriented towards supplying mass quantities of metal products.

At the same time, an analysis of international experience testifies to the fact that a radical solution for these problems is often achieved through the creation of small metallurgical plants with an annual production of several tens of thousands or, more rarely, hundreds and thousands of tons of metal. In this regard, the recommendation by the Problem Committee entitled "USSR Ferrous Metallurgy" concerning the formation within the country's machinebuilding complex of its own metallurgical base, predicated upon the development of a network of small plants, was actively supported by the machinebuilders.

The small metallurgical plants will be created primarily at enterprises of automobile, highway construction and agricultural machinebuilding. Their task will consist of supplying the machinebuilding plants with rolled metal the shape and properties of which will conform very closely to the finished products, cast-shaped billets for the forging and pressing processing stage and also welded units and structures.

The use, during developmental and design work, of computer equipment that promotes multiple variant solutions for tasks concerned with the optimum use of material is making it possible to economize in the use of metal. In this regard, a need has arisen for the accelerated formation of banks of data and knowledge containing detailed technical-economic information on materials which have been created and developed.

Considerable reserves for economizing in the use of metal can be realized from a thrifty attitude being applied to the work at hand. Here use should be made of the cooperative and lease forms for organizing production during all stages in the creation of modern equipment.

Measures must also be implemented aimed at further improving the planning of indicators for economies in the use of metals and for evaluating the work of enterprises in carrying out their established tasks and for improving price formation, since the prices in effect at

the present time for plastics, metal powders, composition materials, curved shapes and bi-metals exceed to a considerable degree the prices for the metal products replaced and are restraining their introduction into operations.

A most important condition for the effectiveness of resource conservation is an improved system for economic stimulation. Commencing 1 January 1987, a new system was introduced for issuing bonuses to workers, leaders, specialists and office employees based upon the principal results of their economic work. The amount of the bonuses for conserving in the use of material resources can reach 50 percent of the value of the material savings realized. However, in accordance with existing statutes, only approximately 15 percent of the total amount of savings realized is on the average added to the material incentive fund. As a result, the bonus payments do not exceed 1-2 percent of the material incentive fund. This is not a very attractive figure.

Ideally, two of these elements of the economic mechanism should be placed in their proper perspective. Here we have in mind the establishment of a raised norm for withholdings for the material incentive fund, from above-plan profits obtained in association with a savings in material resources, or the creation of a special purpose fund.

In many instances, a savings in resources in the national economy can be obtained by means of an increase in the resource-intensiveness for a specific product. But this lowers the departmental indicators and thus it is prohibited by the branch incentive system.

The incentive system for resource conservation should be improved based upon the fact that a branch savings cannot and must not be the only consideration. Incentives must be issued not only for branch savings but also for the final result of resource conservation (metal-intensiveness, machine service life, competitive capability on the international market). Such a mechanism has still not been found. One should be formed and introduced into operational practice.

The problem of metal conservation in machinebuilding is many-sided and complicated. One basic question—technical improvements in the equipment itself and in the construction materials. Thus the development of design and technological documentation for newly planned products must be carried out taking into account scientific achievements in the area of durability, wear and tear and corrosion stability, as the principal factors which define the reliability of machinebuilding products and their overall efficiency.

An analysis of the component elements of the metal-intensiveness of machines and equipment reveals that first of all a reduction in operational metal-intensiveness is most effective for the national economy and thereafter—functional and technological metal-intensiveness.

However, the indicators must be viewed from an overall standpoint, since when use is made of the branch approach a savings in metal in one element of this chain can bring about an over-expenditure in another element.

In the interest of raising economic interest in expanding the use of and creating new progressive resource conserving technologies, a question has arisen with regard to raising the payment for natural resources to enterprises which employ a backward technology, one which does not meet the optimum requirements for resource conservation. Moreover, all profit obtained from the sale of products supplied on the basis of cooperation, produced with use being made of resource conserving technologies, quite properly should be left at the disposal of the enterprises.

Prior to converting over to wholesale trade in metal, tasks should be established for an average reduction in the consumption norm for the principal types of material resources, with the indicators for a reduction in specific

consumption per 1 million rubles of marketable products being used only for long-range computations. A determination of the coefficient of use for metal, as the ratio of net mass to the consumption norm, should ideally be carried out for the purpose of evaluating the level for the technological processes, after authorizing the enterprises to plan it for each processing stage.

Machinebuilding has entered a decisive period of the first of the three five-year plans, during which the economy must be raised to new heights from the standpoint of quality. A basic feature of these five-year plans consists of ensuring that more than one half of the resource support planned for them will be derived from savings—a necessary condition for this modern stage in economic development. All machinebuilders are under an obligation to ensure the unconditional fulfillment of the programs for realizing economies.

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AUTOMATION, AUTOMATED SYSTEMS

Problems, Benefits of Flexible Manufacturing Systems Detailed

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[Article by Academician N.Chumachenko, UkrSSR Academy of Sciences, and M. Ayzenshteyn, Doctor of Economic Sciences: "How to Raise the Efficiency of Flexible Automation Systems in Machinebuilding" under the "Technological Progress" rubric]

[Text] Given the large share of individual and series production in machinebuilding (up to 75-80 percent), the use of flexible manufacturing systems is one of the most important ways to improve and automate production processes. The experience of using FMS elsewhere in the world and at top enterprises in this country shows that flexible automation helps change machinebuilding substantially, raise labor productivity considerably, switch to semiautomated (and in some cases fully automated) technology, achieve high quality of output, cut production costs and accelerate introduction of new products.

At the same time, tapping this potential depends on the ability to deploy flexible automation rationally, to equip enterprises with high-quality, reliable and fully dependable flexible systems and to utilize them intensively.

In 1986, industry had over 200 flexible manufacturing systems performing a variety of production functions; in 1987, their number rose to 300, including 76 in machinebuilding. A study of their utilization conducted by the UkrSSR Academy of Sciences' Institute of Industrial Economy, as well as other studies, show that they have not made a substantive impact in improving technical or economic performance of enterprises. In a number of cases, not only production costs failed to decline, but some indicators actually worsened. Price increases for new equipment, control systems and other technical components of FMS, which are the result of deficiencies in setting wholesale prices, have had a negative impact. Opportunities offered by advanced automation have not been used well. One of the reasons for this is insufficient quality and dependability. For instance, digital programmable operation control systems often operate no more than 35 hours without an interruption or a breakdown. To use FMS efficiently and to achieve uninterrupted operation around the clock and low-personnel technology can only be possible if systems function dependably for several thousand hours at a time. The experience of FMS abroad, namely in Japan and the U.S., as well as that of domestic production lines equipped with programmable control systems made in Japan or other countries, proves that highly dependable systems can be built.

An important characteristic of an FMS is its automation level. The three levels of automation established by the existing classification standard are determined by the fact that currently many systems in the industry correspond to level 1, i.e., the lowest. This classification is not only useless from the economic point of view, but slows down technological progress and encourages the creation of low-efficiency FMS. It enables systems with many important functions performed manually to be classified as level 1 FMS. It tolerates lack of automation for such complex tasks as design of manufacturing processes and products, which is also the case in many level 2 systems, as well as for such tasks as loading and unloading of semi-finished products and stampings, removal of wastes, etc. The ability to reprogram production control equipment and automated control of production processes are required at automation level 1. However, since no strictly defined ratios of automated to manual operations exists, these functions can be performed with a very limited use of computers.

Systems classified as automation level 1 should not be considered flexible systems at all, since in a majority of cases they are not efficient.

A very important qualitative characteristic of an FMS, one that largely determines its efficiency, is its production structure, i.e., a set of equipment components. The design selects a set number of such components, based on the product list assigned to a given FMS. At research institutes, mainly those in the USSR Ministry of the Machinebuilding Industry system, techniques have been developed for selecting optimal sets of basic equipment; these techniques are now in use. Still, the initial parameters of the product list, the volume of products to be processed and flexibility required are often set too high. As a result, technical designs often call for equipment that, upon their implementation, turns out to be excessive. Due to the high cost of equipment and inability to use it to full capacity such systems are inefficient even if their quality and dependability features are adequate. For instance, at one enterprise, a machining FMS includes 29 units of equipment, primarily for machining. As a result, the cost of the FMS is in the tens of millions of rubles. The system operates on a 3-shift cycle practically without breakdowns, and its automation level is quite high. Yet, many units are used on a limited basis and as a result actual efficiency of the FMS is low, with costs higher than the price of output.

A study of 10 FMS in machinebuilding and metal processing showed that 6 of them, based on their design, technical and technological characteristics, are classified as level 1 (i.e., the lowest), 4 as level 2 and none as level 3, which is the highest level. None of them use fully automated quality control processes, loading of tools into the machining parts of equipment or machining centers, delivery and set-up of stampings, direct centralized production control by computer or synchronization of all components of the system. The level of automation at the FMS we studied is by and large typical of the level

of efficiency of such systems at many enterprises of the country. Plans for the FMS called for an increase in labor productivity of 1.5-2 times over a set of separately functioning machines equipped with programmable production control systems. The plans promised savings of R100,000-380,000 annually for the economy due to the FMS. Yet, even at the planning stage, equipment workloads for the FMS were set too low: 5 of them were expected to recoup costs in more than 10 years, and only 3 in a standard period of time.

The low economic efficiency for the FMS projected by the original design stems in a large measure from the fact that it was done at an early stage of development of some systems, when experience in designing such systems was lacking; but most important, it was due to deficient technological means and management systems.

Actual economic impact was not calculated for any of the FMS. An analysis of the level of utilization of FMS equipment in 1986 shows that it was higher than the total for an identical set of machines that were not part of any system. Enterprises' figures show that the workload coefficient for such equipment was between 0.74 and 0.84, while that for separate machines equipped with programmable production controls systems 0.67. Higher workload was achieved due to improved production organization within FMS, reduction in the start-up and wind-down time and time spent on various auxiliary operations and elimination of causes of organizational downtime.

The average shift coefficient at eight FMS was 1.46-1.77. Only 2 out of 10 flexible manufacturing systems functioned in a continuous 3-shift cycle, while the rest operated two 8-hour shifts. The highest results in this area were achieved by the FMS of the Kharkov stamp and pressing form plant and the Odessa machinebuilding complex. Experience has shown that a 3-shift cycle is necessary for an FMS to achieve efficiency. Moreover, efficiency increases if technology that requires little human supervision is used during the third shift. For this, high reliability and dependability of equipment is of an utmost importance, as well as automation at all levels of control of the production process. At the Kharkov plant FMS, two operators service equipment during the third shift. A minimum staff of machine operators is used at the Odessa plant FMS as well.

But at a majority of FMS the level of technology and automation is insufficient to allow low-personnel production. On average, breakdowns per annum number in the hundreds, even at enterprises where FMS have been in operation for several years. The longest an FMS operates before a breakdown at the reviewed enterprises is, on average, 50 hours. Yet, efficient production is achieved, as mentioned above, only when this figure equals several thousand hours. The low machine hours-per-breakdown figure not only reduces the efficiency of continuous production systems but also results in losses of worktime and high levels of idle time.

The introduction of FMS has enabled enterprises to make some reductions in personnel, reduce labor-intensiveness of machining and preparation of production control programs and use work space more efficiently. For instance, at the "Yuzhgidromash" plant, the staff of equipment operators has been cut by 16, and the need for workspace by 25 percent, per equal volume of output.

An analysis of output samples showed that processing by FMS does not offer sufficient reductions in labor-intensiveness compared to conventional machines: on average, the reduction is 27 percent, and in some cases 67 percent. It fluctuates widely at different FMS, depending on the level of sophistication of a given system and its efficiency; in some cases, it is a function of whether or not automated processes were chosen rationally. Naturally, the reduction in labor intensiveness is achieved not by cutting personnel but primarily by raising the efficiency of technological processes and reducing time losses at the system's components.

Meanwhile, FMS' potential that, according to theoretical calculations, should have brought about a dramatic increase in labor productivity has not been realized¹. Actual reductions in labor intensiveness are not in themselves sufficient to provide for efficient use of equipment. This is due to the place and the role allotted to FMS in the production processes of enterprises on the one hand, and to considerable downtime and low workload on the other. The latter problem arises because it is often impossible to utilize equipment to full capacity producing components exclusively for an enterprise's own use. This situation is typical for a large number of FMS in our sample, including the Kharkov plant FMS which operates on a 3-shift basis and boasts a high level of organization of production.

In all, the study showed that in 1986, the volume of products machined by FMS made up 1 to 10 percent of the total volume of machining. This is mainly the result of the fact that flexible systems are still being used on a small scale. Another reason is their low technological level.

The broadening of FMS applications envisioned by their development plan and, most important, improvements in the quality of equipment, can profoundly alter the economics of machinebuilding enterprises. One of the most important tasks is to deploy flexible systems for production processes that are appropriate for them: those with extensive product lists, frequently repeated small runs and other processes capable of making FMS function efficiently, as well as in the production of a sufficient volume of output to provide for full workloads for FMS. Meanwhile, FMS are being designed based not on these requirements but mainly on the technological resources of a given enterprise or complex.

The main advantage of flexible production systems—one that can cause a manifold improvement in a number of important economic indicators against separately

operated similar equipment such as computerized machines or machining centers—lies in a sharp increase in the share of machine time. This is achieved due to the flexibility FMS offer in switching a piece of equipment from one task to another, as well the ability to coordinate that switch with the delivery of stampings or semifinished products to the machine and to use group technology in production. The realization of this advantage depends on the ability to automate control over all production processes and to equip systems with automated equipment to store, collect and transport stampings, components and tools and with computerized technology.

Based on this, it is possible to choose areas where flexible systems can be deployed efficiently. Clearly, the scope for tapping the advantages of FMS is broader in processes which, when performed by conventional computerized equipment, have the largest share of technologically required and organizational downtime in the machining cycle. Due to the technological advantages of flexible systems, such losses can be sharply reduced or virtually eliminated.

Yet, tapping these advantages requires that FMS use technologies that will considerably raise the cost of systems over that of individual machines put together. Such technologies include automated storage capacities, automated transportation and installation devices to deliver stampings for processing and computerized centers to control production processes. These costs comprise a large share of the full cost of an FMS, up to 40-50 percent.

Economic advantages of using flexible systems are achieved when these additional costs are covered by savings from elimination, or a considerable reduction in the downtime of each machine that under conventional conditions is considered technologically necessary. Thus, the efficiency of a given FMS can be gauged by comparing the potential reduction in the amount of downtime achieved by joining different machines in a single system—plus the cut in processing costs and labor of support personnel—with the above-mentioned additional one-time expenditures.

This formula can not replace the accepted method of precise calculation of the economic effect of deploying an FMS. Its purpose is to provide a qualitative gauge of maximum efficiency of a flexible system using a very small amount of information. It helps determine whether or not an FMS is economically feasible at an early planning stage.

Clearly the scope for using FMS efficiently is lower when machine time in a production cycle is extensive, lasting for hours at a time, while the product list contains only several dozen components. This situation is typical primarily for the production of large machinery. Nevertheless, a significant share of existing FMS is used in the production of large components with long machining cycles, in which the share of machine time is considerable.

To benefit the economy, flexible production systems should be deployed or expanded primarily in areas where efficiency can be improved as a result of automation. It is not effective to deploy them only because equipment or funds are available, without taking into account whether or not production characteristics would allow such system to function efficiently.

Under the old economic conditions, enterprises did not bear sufficient economic responsibility for using equipment, including costly automated equipment, efficiently. FMS were paid for primarily with centrally allocated funds. Inefficient operation of flexible production systems had practically no effect on enterprises' output indicators (even though it did lead to lower profits and a worsening of other indicators); it did not affect economic interests of labor collectives, either. For instance, at one production complex, an FMS was installed at a cost of over R2 million but stood idle for nearly 2 years due to low level of work organization and technical deficiencies.

The switch by enterprises to real accounting and self-financing will change their attitude to flexible systems. Clearly, under normal conditions, when an enterprise sets up, as required, a sizeable fund to finance business expansion and research and development, its needs will be constrained by its resources. This will create competition between various means of improving the production process, and the decision to deploy an FMS will be reached only after it has been established that it will be to the enterprise's advantage. However, a danger exists that automation of production will be held back by the fact that enterprises have limited means, and that decision-making is often subjective. This contradiction, however, could be resolved by using financing from central funds slated for economic development, i.e., ministerial funds.

The incentive to operate FMS efficiently and deploy automated equipment rationally also increases. For instance, at one production complex, an ASK-20 automated system, purchased at a cost of R2.4 million, results in payments for funds of R144,000 a year (a 6 percent installment) and depreciation charges which increase costs and reduce profits by R101,000 a year. There are other expenses as well associated with FMS operation. The complex will have an interest in the system only if the general reduction in expenses including labor costs, depreciation charges for its conventional equipment and other elements of the equation not only do not exceed the reduction in profits plus the increase in payments for funds, but provide additional profits and ensure a level of profitability that is not below norm. This will be the main factor ensuring that flexible production systems will be deployed rationally and utilized intensively.

It is important to select correct indicators to gauge the efficiency of flexible systems. Currently, the main, and often the only criterium is the shift coefficient. However, the rise in this indicator merely creates conditions for better production figures at an industry, an enterprise or

a shop. Indeed, a piece of equipment, an aggregate or a system may be operated insufficiently intensively in one shift; then, switching to a two- or three-shift cycle will also be inefficient.

The indicator of equipment operation is well known: it is calculated as a ratio of the actual time of operation to the standard established by the plan which is based on the required shift cycle. Another widely used coefficient is that of workload, which, in addition to the time of operation accounts for the time used to prepare the machine for work, to switch to a different process, etc.

Each of these indicators describes only one aspect of equipment utilization. The full picture is seen in combination. If the shift indicator increases while workload declines, it does not necessarily mean that there are improvements in equipment utilization. It is important to keep in mind that the indicators are interconnected: it is possible to increase the shift indicator by activating a piece of equipment during a shift when it is normally idle, but workload will decline accordingly.

Consequently, we need an integrated indicator of equipment utilization in time, which takes into account the number of shifts during which it operates and its actual workload. It will describe the level of utilization over the entire period of continuous utilization. This approach is especially important in full automation, which is the highest level of FMS development.

The main impact of flexible automation on the small-run and single-unit production of extensive product lists stems from the reduction of losses of equipment operating time that it provides, as well as the manifold increase in machine time, i.e. the share of machining time in the production cycle. This impact of FMS on the intensiveness of the production process can be seen in the above-mentioned approach to the evaluation of equipment utilization, since it gauges the reduction in idle time. As the technical and organizational level of flexible manufacturing increases, the numerical value of the integrated utilization coefficient will rise, nearing its maximum value of 1.

Existing methods for assessing FMS utilization are based on the so-called efficient time fund, which is operation time set by the plan. This utilization indicator is unaffected by the number of shifts during which the equipment is operated: in a situation when the equipment is operated during a fewer number of shifts, the indicator may be equal to or even higher than when the number of shifts is greater. This approach distorts the true state of equipment utilization, disguising the fact that the number of shifts is low.

Our method can be applied to FMS of any type, made up of any number of machines. Coefficient values for different flexible manufacturing systems are comparable and depend primarily on the actual level of their workload. The general level of output is different for each

system, since it depends on the product list, the design of the flexible manufacturing system and the production control system. The indicator of FMS output—whether it is measured in items, value or normative hours—depends primarily on technological and organizational factors as well as on the level of utilization of equipment. The integrated utilization indicator depends only on the level of FMS operation, i.e., its workload. This is why it can be used to plan and assess the functioning of manufacturing systems, to develop incentive programs for employees and to compare the functioning of different FMS.

One of the causes of low efficiency of flexible systems is the small number of components processed and lack of sufficient diversity. In the future, as the level of automation and long-term dependability of all components increases, the productivity of these systems will rise, exacerbating further the low workload problem. The solution lies in inter-industry territorial collaboration; specialized FMS should produce components not only for their own enterprises but for others, located in the vicinity. This entails identifying the full capacity of the system and motivating personnel to increase its utilization level. The target should not be the achieved level but the economically and technologically feasible ones taking into consideration the dependability of system components and organization of technical support functions.

To produce extra output, including that for other enterprises, FMS possess hidden reserves that stem from the currently insufficient utilization of equipment.

The efficiency of flexible manufacturing systems depends in a large measure on how well accounting and assessment functions are organized. Currently, the process of analyzing the functioning of complex, costly automated equipment remains the same as for conventional all-purpose machines. As is well-known, the level of utilization of equipment is reported in the "I-tp (machinery)" form. The form provides data by type of machines and other equipment. For each group, data on shift and productive time fund operation is provided. Reports are based on observations during a 24-hour period, which are recalculated to cover the entire reported period, distorting the actual workload level. This approach is prompted by the need to come up with an estimate, however approximate or imprecise, of the level of utilization of a large number of machines, and it could have been acceptable if were applied to relatively inexpensive equipment.

Some enterprises keep working tallies of indicators pertaining to the operation of technologically advanced equipment such as machines with programmable controls and FMS; this is not, however, obligatory and therefore is done at only a few places, sporadically, and the data is all too often unreliable. Some idea of the level of utilization of automated production lines and flexible systems is provided by the USSR State Committee on

Statistics-mandated "8-nt" form report. However, it is also sporadic, since it is submitted once every 2 years and is based on observations covering a limited period of time.

Thus, we currently have no systematic, reliable data on the level of utilization of highly productive, costly technological systems at machine building enterprises. The efficiency of utilization of this potent equipment is controlled neither by management entities nor by enterprises themselves.

Since 1988, statistical press releases published by the information center of the USSR State Committee on Statistics have included information on the number of flexible manufacturing systems in industry, including machine building. This data, however, gives no idea of their structure or technological level. Indicators of efficiency are lacking not only for existing FMS but for newly installed ones as well.

It would be useful to adopt measures to achieve higher efficiency for flexible manufacturing systems. A number of such measures, ones that deal with technological progress and reliability and dependability of equipment, will require additional spending on research, development and installation. These measures, however, may be difficult to implement if no working system to evaluate and analyze their effectiveness is set up.

An important precondition for ensuring the efficient operation of technical equipment are measures taken in the area of industrial organization. They do not require vast expenditures and can be implemented in a short period of time. One of them is a systematic, reliable and uniform accounting system for utilization of all FMS. It seems that it should also cover all automated production lines costing in excess of R1 million. It is important to develop indicators covering time of operation and idle time, volume and quality of production and use of raw materials, tools, labor and energy.

The experience of automated data collection on equipment utilization and flexible manufacturing as a whole exists at the "Krasnyy Proletariy" industrial complex, Ivanovo Machinebuilding complex and elsewhere. Its dissemination will help conduct a system-wide analysis of efficiency of automated system and assess the results of introducing advanced technology. Tapping hidden reserves will help raise technological levels and draw upon other organizational factors.

Reliable data from systematic accounting and reporting on the workload of flexible manufacturing systems is required if we are to achieve efficient labor remuneration and incentives for employees, to promote socialist competition and improve ties between enterprises based on real accounting. This is a precondition for using modern technical equipment rationally and carrying out the task of accelerating the growth of the machinebuilding industry.

Footnotes

1. This problem has been extensively discussed in economic literature. See for instance *PLANOVYE KHOZYAYSTVO*, 1986, No 6, pp 53-54 and No 7, pp 48-50

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'Mikrodat' Automation System's Multiple Uses Described

18230017 Moscow SOTSIALISTICHESKAYA INDUSTRYIA in Russian 11 Oct 88 p 2

[Report from Kharkov by SOTSIALISTICHESKAYA INDUSTRYIA correspondent V. Zenkovskiy under the rubric "Winners of the USSR Council of Ministers Prize": "'Mikrodat' Can Do Everything"; first paragraph is source introduction]

[Text] One can see messengers from all parts of the country in the reception office of the Kharkov NPO [Scientific Production Association] for Automated Control Systems (SAU). And representatives of the most diverse sectors of the national economy—metallurgists and machinebuilders, gas workers and vegetable growers, and workers in municipal services and transportation. They all have one interest—the "Mikrodat."

Who among us has not seen a "child constructor" set in a toy store or held one in his hands? It is not hard to put together what we want—a lifting crane or a motor vehicle, or a spaceship or a garden house—with the parts of different sizes and shapes. The specialists of the NPO SAU have also developed something like this. The "Mikrodat" is also made up of a set of diverse elements. The only difference is that by arranging them in different combinations, we can acquire automated control systems for performing a wide range of tasks, from the simple to the extremely complex.

In order to judge the versatility of the "Mikrodat," it is sufficient to name several places where it is used. In Kharkov, for example, they use it to improve the organization of the city's traffic and distribute water and heat; in Cherepovets it controls the world's largest blast furnace, in Lipetsk it controls a powerful rolling mill, and in Odessa it controls a cannery. Altogether more than 130 projects in this and other countries are equipped with the advanced Kharkov complex today.

"We have managed to achieve practically unlimited versatility for the 'Mikrodat' through a nonstandard approach to its construction," A. Perekrestov, assistant general manager of the NPO for science, states. "Unlike other control system developers, we did not orient our innovation toward a specific project or group of projects, not toward a sector or group of sectors, but toward a range of management tasks which we have occasion to encounter in all areas of human activity."

The capabilities of the complex are reflected to a certain extent in the trademark itself: microprocessor equipment (*mikro*) for traffic control (d), automation (a) and remote control (t).

But there is no question that the customers' interest in what was created by the people in Kharkov was not aroused by an abstruse name. First of all, the improbably short time for drawing up project plans ordered by the SAU is astonishing. They finish them literally in days here. Seeing my bewilderment, Perekrestov explains:

"There is no secret here. The nonstandard modular—or more simply stated, composite—structure of the complex makes it possible to abandon traditional, labor-intensive project planning by stages with submission to the top, coordination and approval of the preliminary sketches, rough drawings, and so forth. After receiving an assignment, the SKB SAU [special design bureau for automated control systems] staff members need only to arrange the system required from the standard assemblies that have been completed, checked and tested in operation. And experienced specialists need only a week for this.

The "Mikrodat" has another advantage. It makes it possible for the SAU to be organized for each assigned project with a minimum number of modules. On the one hand, a full workload is provided for the elements available in it and on the other hand, this is accomplished at the lowest possible price.

And while we are discussing the price, we cannot remain silent about one more feature of the complex that is of no small importance. We do not have to think about foreign exchange when we order it. Everything in it from "a" to "z" is ours, of domestic manufacture. This feature is particularly attractive to customers. As Ye. Krakovskiy, general manager of the NPO VNIIITmash [Scientific Production Association of the All-Union Scientific Research Institute of Foundry Machine Building, Casting Technology and Automation of Casting Production] stressed, for example, the "Mikrodat" has enabled enterprises of the association to discontinue purchases of automation facilities from capitalist firms and to make a significant savings in foreign exchange.

In leafing through the thick bundle of favorable, and at times enthusiastic, comments on the major technical innovation, which has been awarded the USSR Council of Ministers prize, you discover more and more new and outstanding features. "Introduction of one complex in the "Mosgaz" Production Association makes it possible, by improving the efficiency and accuracy of record keeping and control, to save 5 to 10 million cubic meters of gas per year, to reduce the cost of emergency restoration operations, and to obtain an annual economic gain on the order of 100,000 to 140,000 rubles."

Judging from the comment from another customer, the "Mikrodat" has made it possible "to develop a flexible system for controlling the technological process of growing

expensive monocrystals and to increase the percentage of satisfactory end products obtained." Another enterprise succeeded in "automating 87 percent of the consumer goods production and bringing output up to 32 million rubles annually with a work force of less than 100 servicing employees." In the "Metallurgmash" MNTK [possibly: interdepartmental scientific and technical committee] they believe that "Mikrodat" is the only domestic microprocessor complex of technical equipment on the basis of which it is possible to construct functionally complete control systems in the lower tier [*yarus*] of the ASU TP [automated control system for technological processes] for metallurgical machinery and assemblies which meet current requirements." [initial quotation mark omitted] But specialists from the "Gidrougleavtomatizatsiya" Institute went even further in their assessment of the new complex, acknowledging that "it is unequaled by other automation facilities for systems application produced by domestic industry and is not inferior to the models turned out by the best foreign firms."

If we add to what has been said that all customers mention the simplicity of maintenance and the high reliability in operation of the Kharkov complex, including at enterprises with difficult production conditions in the metallurgical and coal industries, where other systems simply do not operate, the desire to actually see the latest word in equipment a little sooner is understandable. A. Perekrestov, the assistant general manager for science and one of the winners of the USSR Council of Ministers prize, suggested that we go to the experimental plant, which is the only one in the country at present that is turning out the long-awaited innovation. I became acquainted there with another prize winner and the leader of the team of assemblers, A. Murmylo. Leading us around the floors of the large production building, he stopped by the automatic lathes and said bitterly:

"We bought six machine tools for drilling printed circuit boards. The machine tools themselves seem to be all right, but their ChPU [numerical control] is junk, metal scrap," the brigade leader pointed to a metal cabinet the size of a "ZIL" refrigerator standing next to the wall. "There is one like this for each machine tool. We had to get rid of these and install the 'Mikrodat'; there it is hanging on the wall. One for three machine tools. The specialists have calculated that it is four times smaller and costs three times less."

The brigade leader's face brightened in the electroplating section for the printed boards:

"We worked by hand here before. Mostly women. As for the working conditions—see for yourself. It's not good to breathe. In a word, electroplating. And there was defective output as well... We acquired a production line, and again we equipped it with our 'Mikrodat'—and there have been no problems. Everything is done automatically. See, the cabinet is behind the glass and it is controlling the entire line. The working conditions have changed and quality has improved sharply."

We also heard earlier that the Kharkov control systems are having a strong influence on the increase in quality.

"We have throngs of customers," Perekrestov says. "The line is 2 years long. What can we do? We are at our wits' end. We are writing reports to the ministry, of course. There are no capacities, they reply. It is just like in a store. We put out a short supply for a half hour and tease the people, and then there are empty shelves again."

This is what we thought about when we listened to the assistant general manager. How many wonderful things we have in our country. Those who create them are

awarded important prizes and high honors, but something is still lacking to give a new and promising development a longer life. As we have just heard, they refer at the top to the shortage of capacities in our case. But what about those electronic control systems which have to be taken out of the machine tools because they are unsuitable for operation? Are they turning those out with some capacities?

Of course, it is easier to get foreign exchange to purchase imported technical innovations than it is to put such items into production at home. But we must begin being concerned about this at some point.

MOTOR VEHICLES, HIGHWAYS

Rocket TEL Converted to Crane Chassis
18290028a Alma-Ata AVTOTRANSPORT
KAZAKHSTANA in Russian No 8, Aug 88 pp 36-38

[Article by A. Lapin and L. Gogolev under the "Motor Vehicle Enthusiast Club" rubric: "Yesterday Missiles, Tomorrow Cranes"]

[Text] The demolition was set for exactly 10 o'clock. So in a half hour all the approaches to the firing range will be cut off. And if one is going out to a place, it will be quickly!

In several minutes an orange "Pazik" [vehicle made by Pavlovo Bus Plant imeni A. A. Zhdanov], plunging from pothole to pothole, had taken our group of journalists over the poor roads in the steppe from Saryozek to where one of the conspicuous events in modern history was to take place.

The conditions on the firing range were routine and businesslike. The small valley surrounded by rocky hills looked like an ordinary part of the Kazakhstan steppe. The only thing which made it different from other areas was the concrete command post which had been dug into the ground on top of one of the hills.

Yesterday we met the persons who were preparing the missiles for the test demolitions. We watched the team led by Captain D. Gimadiyev remove the missile's brain—the instruments of its guidance and control system—from its steel interior with solemnity. They were well coordinated and worked efficiently.

And the missiles, frankly, were good-looking. Even laid out on the ground, their graceful lines and completeness of form, which usually distinguish a work of technical art, were striking. Flashes of sunlight were playing on their silvery metallic skin, and it seemed that the missiles were living things at such moments.

The hands of the clock were moving steadily toward 10 o'clock. A helicopter circled the surrounding hills and finally landed. High-ranking military officers had arrived.

Red warning flares are shot up one after the other. The first explosion is heard; it destroys six dummy items. But we are waiting impatiently for the second one, the main one.

It comes unexpectedly, all the same. A red tongue of flame rises suddenly in the center of the field and the rocket fuel detonates without a pause. The burning fragments of fuel rise high in the sky like fireworks. The pressure of a shock wave hits us in the face. The boom that accompanies it finally reaches us as well.

A white and yellow mushroom cloud swells over the field in a minute. It is drawn out more and more and slowly drifts with the wind. A helicopter appears in the blue sky from behind a hill and dives into the cloud. These are scientists taking an air sample. And we go back to the point of explosion again.

At first glance, the epicenter of the explosion resembled the site of a bonfire that had been extinguished where some giant had dispersed the coals. I pick up a small piece of the silvery metal from the hot earth that was scorched by the explosion and keep it as a memento.

Who knows, perhaps years will pass and man will put a monument on this field with an inscription such as this: "The first missiles were destroyed here at the end of the 20th century. Human reason firmly established itself over nuclear folly for the first time in history!"

Well, everything about the missiles is clear. They will be destroyed. But what about the equipment which transported them? The powerful eight-wheeled MAZ-543 [vehicle made by Minsk Motor Vehicle Plant], which we have become accustomed to seeing weighed down with OTR-22 [SS-12] operational-tactical missiles. The Soviet-American Treaty on Elimination of Intermediate- and Shorter-Range Missiles determined the fate of this type of combat equipment. The powerful launcher chassis will still be serving the national economy. The skilled craftsmen of Odessa's January Uprising Production Association have begun mounting powerful cranes on the strong green bodies of the MAZ vehicles.

Another chassis—the 12-wheel chassis from the launcher-transporters (TPA) for RSD-10 [SS-20] intermediate-range missiles—also will be put to work. By the opening of the 19th Party Conference, the plant workers had mounted the first AK-80 vehicle-mounted crane, with a hoisting capacity of 80 tons, on the chassis. The telescopic crane boom is from 13 to 35 meters long. The rotating section turns at a speed of about 1.5 revolutions per minute; it has a 180-horsepower engine. The chassis has a 650-hp diesel engine. The transmission is hydro-mechanical. All wheels are drive wheels, and the front two pairs are steerable. The suspension is hydropneumatic. The crane has outstanding cross-country ability, not inferior to tracked vehicles. And it can travel at up to 60 kilometers per hour on a good road.

Converting the launcher chassis for a crane is a complicated task, of course. But the craftsmen of Odessa's January Uprising Production Association are not concerned about their skill. This is the basic producer of heavy-capacity cranes in our country today. One-third of the association's output goes for export. Our cranes are valued on all continents for their reliability, high productivity and maneuverability. We will say more about the types of cranes turned out by the association.

Let us begin with the diesel electric pneumatic-tire cranes with a hoisting capacity of 25 and 100 tons. They are distinguished by their high maneuverability even under cramped conditions, made possible by the collapsible boom. The crane can operate not only on its own engine, but from an external alternating current power supply (380 volts), which makes it possible to economize fuel.

Another of the association's products is a diesel-hydraulic crane mounted on a special motor vehicle chassis. These cranes are suited for operations where there are frequent moves from one site to another, especially where considerable distance is involved. The hydraulic drive of the crane machinery makes it possible to adjust operating speeds over a wide range.

These cranes have been manufactured by the January Uprising Association in collaboration with machine builders from the Polish People's Republic since 1975. Cranes with hoisting capacities of 25, 40, 63 and 100 tons are being turned out within the framework of this cooperation. The chassis are produced in Poland, and the turning section and end assembly are made in the USSR. The cranes with different capacities have a high degree of standardization. Altogether more than 800 cranes, basically the 40-ton and 25-ton models, are being turned out.

Work is being completed today on the second generation of Soviet-Polish cranes. The 25-ton and 40-ton models have already been developed. They have better operating features, they are 20 percent smaller, and they are more comfortable.

The association signed an agreement with the West German ("Liebherr") firm (in the city of Eichingen). As a result, one of the first Soviet-West German mixed enterprises was established; it was given the name "Kranlod." Manufacture of this brand of self-propelled crane has been begun at the newly developed production base in Odessa. The first crane was built in April, and it is planned to manufacture 60 of them by the end of this year.

At present, 90 percent of the units and assemblies used for the cranes are manufactured in the FRG. However, the proportion of parts of Soviet manufacture will be increased later on. And after the enterprise reaches its planned capacity, the deliveries from abroad will be insignificant. By 1992, 700 cranes and 300 rotating platforms will be turned out every year in a crane manufacturing shop 50,000 square meters in area.

In the future it is planned to manufacture an entire range of cranes with a hoisting capacity of up to 160 tons. For the present, 50-ton and 60-ton cranes are being turned out today.

The "Kranlod LTM 1050-4" self-propelled hydraulic crane, with a hoisting capacity of 50 tons, is on a level with the best world models. It has high capacity, superior

turning ability and excellent cross-country performance, which enables it to operate successfully where roads are poor.

The five-section telescoping boom has high rigidity. It is 38 meters at its longest, but when an extender is used, a load may be lifted up to 56 meters—a record distance for cranes of this class. The diesel-hydraulic drive is equipped with a responsive control system, which provides for high accuracy in operation. The maximum load hoisting speed reaches 120 meters per minute, and the platform can rotate at 22 revolutions per minute.

The crane has a special eight-wheel chassis with an 8 by 6 wheel arrangement (the first, second and fourth axles are drive axles). All wheels are controllable. The suspension of the "Nivomatik" is hydropneumatic. An eight-cylinder liquid-cooled Daimler-Benz diesel engine, the OM 422A, is installed on the crane. It produces 330 horsepower. The Soviet FMZ-238F diesel, with the same horsepower, may be used as an alternative engine. The crane uses an automatic six-speed transmission and a two-speed transfer transmission.

Equipped, the LTM 1050-4 crane (with an extender and counterweight of 7.3 tons) weighs 44 tons. Its maximum transport speed on the highway is 75 kilometers per hour.

The designers devoted particular attention to the crane's operating convenience. The cabs for the operator and the driver are made of zinc-plated steel and are more comfortable. They are equipped with multiple-layer safety glass and a heating system which operates independently of the engine. Two self-centering control handles are built into the arm rests of the seat. The load moment is controlled with an electronic limiter. On the screen of this instrument, the crane operator sees the information necessary for operation in graphic form; and data such as the weight of the load being lifted (gross and net), the length of the boom and the height to which the load is being lifted appear digitally on the screen. A warning signal is given by the system if a dangerous situation is encountered.

Movement of the crane on a construction site and raising and lowering of the outrigger supports can be controlled from the operator's cab.

The January Uprising Production Association is also turning out a number of very powerful hydraulic cranes of domestic design. One of them is the KS-9471 self-propelled crane, which has a hoisting capacity of 160 tons. It is designed for installing blocks and building structures of considerable size.

The crane machinery is driven by axial-piston hydraulic engines or hydraulic cylinders fed by pumps. The latter are driven by the power plant for the rotating section. The boom is telescopic, in five sections, from 14 to 49.92 meters in length. The boom may be retracted or extended with a load on the hook. When necessary, a

10-meter extender and controllable guksi [possibly: cables] 20, 30 and 40 meters in length are used. A load can be lifted at a maximum speed of 104 meters per minute.

It has a special 14-wheel vehicle-type chassis. Its maximum transport speed is 50 kilometers per hour. The crane's structural mass is 114 tons.

The KS-10471 hydraulic crane is even more powerful. It has a hoisting capacity of 250 tons. Its telescopic boom extends from 14.4 to 51.28 meters. The maximum speed at which a load can be raised and lowered is 2 meters per minute. The speed at which the rotating section turns is 0.5 revolutions per minute.

The crane's chassis has a unique design. It has eight axles (a 16 by 8 wheel arrangement). The frame is articulated, which provides for a high degree of maneuverability (the turning radius of the front wheel is 16 meters). In an operating position, the rear of the chassis is extended and utilized as rear support beams; this makes it possible to reduce the crane's mass.

A 240-horsepower engine operates the rotating section, and the diesel for the chassis is 525 horsepower. The transmission is hydromechanical. There are multiple backups for the brake system. The crane has a transport speed of up to 50 kilometers per hour and it has a structural mass of 142 tons.

It remains only to add that the Odessa workers are adding another two cranes to this broad range of machines—based on the former missile carriers. Yesterday missiles, and cranes today. Such are the urgent dictates of the time!

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New ZIL Production Facilities Noted
18290028b Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 23 Aug 88 p 1

[TASS report for SOTSIALISTICHESKAYA INDUSTRIYA: "ZIL: The Fifth Renovation"]

[Text] Traditional gasoline is gradually being replaced by natural gas and diesel oil—an ecologically cleaner and economically more advantageous fuel for motor vehicles. For this reason, construction of several facilities which make it possible to increase the production of trucks that operate with gas and diesel fuel has been planned in the fifth renovation of the Motor Vehicle Plant named I. A. Likhachev [ZIL].

Installation of engineering equipment has begun at the station for testing compressed gas vehicles that has just been erected. Final assembly and testing to ensure air-tightness of the cylinders themselves, as well as the devices in the system for feeding the engines, will be

performed here. The station's annual capacity is 20,000 units of each type of this product. Vehicles coming off the ZIL assembly lines will come here for complete sets of the equipment.

The testing station is large, but far from the only new construction at the capital's oldest vehicle plant, whose collective is updating models of the vehicles being turned out, improving the economic indicators for their work, quality and durability. Thus, the construction of buildings for body work, molding and welding and many other facilities is in full swing to increase truck production capacities. In accordance with plans, when they are put into use it will be possible to increase the output of new models of diesel vehicles up to 70,000 per year. Altogether more than 40 production facilities totaling 406,000 square meters in area are to undergo fundamental reconstruction, renovation and automation.

It is not simple to undertake work on such a scale at an enterprise in operation, but it is especially difficult at the ZIL. The point is that it is bordered on one side by the bank of the Moscow River, and on the other by the city's residential blocks. The area at the plant is utilized so completely that there is hardly any room for expansion. All this creates considerable additional difficulties for the construction workers, the installers of equipment, and those who are manufacturing the vehicles, not only the ones who are not reducing the pace of their daily work, but those who are efficiently restructuring in conformity with the requirements of cost accounting and self-financing as well.

Each person at the plant, which has been operating for over 2 years under the new economic conditions, has now learned very well to take into account and look for the ways of intensifying the work. For that reason, he is also taking an active part in renovating his enterprise; the result of this will be improvement in working conditions, the use of ecologically "cleaner" techniques, and increased efficiency in all production facilities. This will be accomplished by introducing as much mechanization and automation as possible for all operations—the basic and auxiliary ones—and extensive application of lines using industrial robots and ASU [automated control systems].

'MAZ-2000' Displayed at Paris Auto Show
18290028c Moscow IZVESTIYA in Russian
19 Sep 88 p 1

[Interview with M. Vysotskiy, chief designer of "MAZ-2000" semitrailer, by IZVESTIYA special correspondent V. Belikov: "The Premiere of the 'MAZ-2000' in Paris"]

[Text] The fundamentally new "MAZ-2000," the trailer truck of the next century, will represent domestic industry at the 75th international auto show in Paris opening at the end of September.

This vehicle is already rolling over the roads of Western Europe. The front of this MAZ [made by Minsk Motor Vehicle Plant] looks as if it were taken from the most modern bus or liner of the superhighways. A huge panoramic windshield blends into a curved deflector. It forms the roof of the cab as if it were one piece with the multi-axle semitrailer.

The cab and the controls in it are articulated below with the so-called traction (power) module—a turning truck with two drive wheels and a diesel engine of 360 to 420 horsepower and cylinders arranged horizontally. The two-axle semitrailer shown at the exhibition was covered with an awning inscribed garishly "PERESTROYKA" in the Latin alphabet.

"The name for our promising semitrailer," Chief Designer M. Vysotskiy states, "was chosen not only because this word is now one of the most popular in the West and is understood by everyone without being translated. It has a special meaning when applied to the 'MAZ-2000': the vehicle's design makes it possible for it to be flexibly and rapidly restructured, depending on the amount of freight and the nature of the road conditions, the relief of the terrain, and even the seasons."

[Belikov] How is this accomplished?

[Vysotskiy] The principle of modular sections is used—modules that are standardized with each other to the maximum extent in production and operation. Instead of several dozen different models and modifications of the truck tractors and the trailers and semitrailers for them that are now being turned out, we plan to shift to the manufacture of five or six modules in the near future. With such units put together in different combinations we can have a tandem trailer truck with two power plant modules for difficult mountain routes, for example, or a consist of increased carrying capacity—up to 88 tons!

To monitor the operation of the additional engine module a display panel is planned for installation in the cab as an integral part of the electronic system. It also provides for a remote-controlled rear view device and a radio for satellite communication.

[Belikov] It is not easy to drive such a super-rig. What conveniences are there for the drivers?

[Vysotskiy] The cab was developed by young plant designers jointly with the Belorussian branch of the VNII [All-Union Scientific Research Institute] of Technical Esthetics. Cooperation with scientists specializing in electronics led to the development of a complex of control systems utilizing microprocessors. The objective was to ensure that the driver has the maximum amount of comfort in his work place both on the road and during a rest period.

The cab's dimensions make it possible for him to stand up straight and move freely from the basic seat to the one occupied by his shift replacement. It may be turned around to the other side, incidentally—toward the living compartment, where a small refrigerator and gas stove have been installed to prepare hot meals. There is an air conditioner, radio and recorder, and two sleeping areas have been provided (the upper one is inside the deflector). An electropneumatic system for opening the doors is another feature that was well thought out; this ensures that openings are sealed better, which is of no small importance in the winter and the tropical heat.

[Belikov] You already mentioned the power of the engine, but not its other features. What are they?

[Vysotskiy] Unfortunately, our suppliers—the Yaroslavl engine manufacturers—do not have the diesel needed for the "MAZ-2000." We need a "heart" for the vehicle with a relatively low fuel consumption and at the same time, one which can provide for a highway speed of up to 120 kilometers per hour. I will note that the aerodynamics of the new truck-trailer rig is comparable with the streamlining of a passenger car. High reliability and long engine service life, maintenance that is less labor-intensive, and a "clean" exhaust to meet strict international standards are required as well.

In a word, the engine is the problem we are trying to resolve through businesslike collaboration with the well-known West German firm MAN. We are using its power units successfully on series tractors.

In conclusion, the chief designer said he wanted to express the hope that the series "MAZ-2000" would appear at the end of the next five-year plan, not on the threshold of the coming century. This period of time will become realistic when there is widespread cooperative activity among plants of the entire sector.

Reasons For Unrest, Strikes at Motor Transport Enterprises

18290022 Moscow SOVETSKAYA ROSSIYA in Russian 13 Oct 88 p 2

[Article by G. Podlesskikh, SOVETSKAYA ROSSIYA special correspondent: "Unprofitable Routes"]

[Text] A whole wave of social conflicts rolled through the urban passenger car enterprises of the Ministry of Automotive Transport this year. No one knows exactly how many instances there were where brigades or even truck convoys refused to go to work. We managed to settle these conflicts comparatively quickly and without a great deal of noise. The strikes by the motor transport workers in Tobolsk, Irkutsk, Leningrad, and other cities were a different matter. Not a single bus or taxi left the territory of the motor pool in Velikiye Luki for about a day and a half. The latest work conflict of this type, whose causes the RSFSR Council of Minister examined, occurred in Togliatti where the start of the assembly lines for the

VAZ [Volga Motor Works vehicles] was delayed 45 minutes because of a transport upset. A total of 108 vehicles fewer than planned were produced on that day.

There is no doubt that a share of the guilt for the extraordinary event lies on the immediate directors of the motor enterprise. A great deal depends on them to insure that a work conflict, if one arises, does not reach a critical point. The fact that dissatisfaction is piling up mainly among urban passenger transport drivers attracts attention to itself. What is the matter?

A. Panteleyev, the republic's deputy minister of motor transport, says: "In comparison with freight shipments, passenger traffic is unprofitable. Our branch annually loses half a billion rubles on intercity passenger traffic."

This has been the custom since 1973 when the expenditures of passenger motor enterprises exceeded their income for the first time. Previously, however, these conflicts arose extremely rarely. Since the branch's shift to working under complete cost accounting and self-financing, the number of extraordinary events has multiplied. These are facts—and the question arises with no regard for one's wishes: What is this transport workers' cost accounting which introduces social tensions into work collectives and which not only does not help to solve problems and contradictions that have arisen but even aggravates them sharply?

At one time, the specialty of a city bus driver was highly valued and he received large earnings. Lines consisting of those wishing to sit behind the steering wheel of an urban bus existed. Then, the situation changed radically. With the appearance of the KamAZ [Kama Motor Vehicle Works vehicles] and other vehicles having a large cargo capacity, earnings from freight traffic grew significantly. The freight enterprises were highly profitable. Although the losses in passenger traffic are compensated from their profits, sufficient resources remain for social development. Moreover, the use of departmental buses received widespread dissemination. Work conditions here can in no way be called strenuous, but the level of social support—for example, housing, nurseries, kindergartens, dispensaries, and holiday homes—is incomparably higher than that of the workers in general-use passenger motor transport. The condition of the rolling stock itself also aggravates the situation. A large portion of passenger traffic uses LiAZ [Likinskiy Bus Works vehicles] where the temperature in the driver's compartment during the summer is higher than in the tropics. Very many buses in the branch should be written off. However, there is nothing to replace them with. Traffic volume is growing, but the delivery of vehicles is not increasing. The operating period considerably exceeds the norm and buses frequently go for repairs.

It is not surprising that the prestige of the urban bus driver profession has begun to fall. Today, personnel turnover exceeds 20 percent. People have ceased to value their jobs and this has forced the demands on the driver

staff to be reduced to a dangerous point. Last year, almost 2,000 accidents occurred on the republic's territory due to the fault of bus drivers. More than 300 people were killed and more than 3,000 were injured in these accidents. The absence of solid professional skills leads to continuous nervous strain. Only an insignificant portion of drivers work until retirement.

This entire jumble of problems can be gradually untangled with the help of the new economic mechanism. The main trouble, however, is that passenger motor enterprises have been essentially outside the economic reforms. With the shift to cost accounting and self-financing, the people should have seen that their well-being and the acceleration of social development now depend on themselves. But in actuality? The Yaroslavskoye enterprise, for example, attempted to sharply increase the number of buses on the line and losses grew by six percent as a result. What was there to cover them with? Take additional assets from the profits of other enterprises? However, whereas previously when income was not fixed as the most important indicator and giving one's money was simply a pity, it now takes the form of sharp conflicts more and more frequently. The strike in Togliatti is confirmation of this.

G. Shepilov, the chairman of the labor collective's council, explains: "People are not out only for money. We earn enough; we receive more than 400 rubles. And they say to us: What else do you need? We need to arrange our life as they are doing in other enterprises. There are assets for this. But where have they almost completely gone to?"

The economists and planners have opened their books to the drivers. Everyone has seen that only 668,000 rubles remain for the collective from the 3.6 million rubles of profit; the remainder has been allocated to the ministry's central fund. But the requirement for social development is an acute one. More than 200 people are in line today for housing. However, not a kopeck has been planned this year for its construction. There are no assets. The majority of those in line hope to receive an apartment by the time they retire. There is also an extreme shortage of nurseries and kindergartens.

Ministry workers—A. Panteleyev, a deputy minister; S. Skalunov, chief of the main administration for the population's transport services; and A. Artyukhov, chief financial specialist on the branch's staff—explained: "The protest of the Togliatti drivers was born in their economic illiteracy. We have 500 enterprises which regularly show a loss or little profit. Their survivability can only be assured by those who receive greater profits. If we had not taken assets from that same Togliatti enterprise, they would not have been in the budget...."

What do the drivers not really understand? The fact that the branch lacks assets for the normal social development of the enterprises that are engaged in urban passenger traffic?

It turns out that work collectives, which work well, must suffer from the levelling approach. It turns out that complete cost accounting exists only in ministry orders. It is quite clear that the conflicts, which have arisen, have reflected a crisis of confidence in the administration staff and its ability to improve the situation step by step in each specific case. When speaking about work collectives, the branch's directors today say that existing norms are being formulated based on previous planning indicators and that the situation will be changed only in the next five-year plan. The collectives, however, are not accepting "these postponements" with enthusiasm.

Of course, each work conflict has its own specific causes. In Velikiye Luki, for example, it broke out after the administration violated the conditions in the collective contract by repealing the system for awarding bonuses. This was the last straw. In Togliatti, the fact that the drivers accumulate up to 40 hours of overtime a month poured oil on the fire. Unfortunately, no one thought about how the large regular overtime heats up the social and psychological situation in the driver collective. It was necessary to delve objectively into all the details of the conflict. The Kuybyshevavtotrans requested the ministry's assistance. The ministry promised to send branch scientific representatives to help them delve into the situation and reveal reserves. However, A. Krasnoshchekov, the then chief of the passenger main administration, arrived in Togliatti instead of scientists. Aleksandr Prokofyevich, not wishing to meet with the collective, assembled the command staff of the enterprise. Having put the fear of God in his subordinates, he considered his task completed and left. Hardly a day later, the strike broke out....

Later, A. Mikhaylov, a scientific associate, arrived in Togliatti from the motor transport institute. The brigade leaders listened to his explanations with intense attention. He put everything on the table and pointed out reserves and a way out of the situation that had been created. The administration of the motor enterprise concluded an agreement with him to help bring cost accounting to mind. You see, it turns out that it is possible to find mutually acceptable solutions—if the desire exists. If that same A. Mikhaylov had come in a timely fashion, the drivers told him, the collective would have had sense.

Is it possible to say that a way out of the situation, which has been created, has been found today? Strikes are not a method that can lead to success. They understand this now in Togliatti. That is why the drivers have supported the decision of the labor collective's council: Henceforth, if hotheads force idleness, they will make up for all the losses caused from their own pockets. You see, 34 buses moved out on that day on schedule. Some drivers would have liked to begin work but they pulled them out of their vehicles. In this case, the entire collective would have had to pay almost 129,000 rubles in fines for economic sanctions without an analysis of who was right and who was guilty. Is this just? True, you did not manage without curiosities in the council meeting.

Driver V. Matveyev exclaimed: "How will I vote for this solution when I myself have participated in everything?"

They explained again to him that this was in the future. If this happens again, then you will pay. They voted unanimously for it.

Many immediate tasks have accumulated during the time of stagnation in the country's economy, including passenger transport. You will not solve them in one year; there is nowhere to get the money from immediately for everything. However, if everyone "pulls a blanket over himself," we will never put order into the economy.

The white-heat of emotions is abating but the problems remain. No one has any doubts now that it is necessary to restructure the economic mechanism in motor transport effectively.

Deputy Minister A. Panteleyev says: "A program for normalizing the economies of enterprises that regularly lose money or earn a low profit has been developed in the branch. It provides for improving the technologies for shipments and repair work, in particular, by introducing automated control systems, and for regulating the way labor is paid for. Thanks to the measures that have been planned, it is assumed that losses will be reduced by 20 percent by 1990."

G. Savtsov, chief of the main economic administration, links his high hopes with another decision. He thinks that it is necessary to increase the fare a passenger pays for a trip. Then, he says, losses should be reduced twofold.

Genadiy Mikhaylovich assures: "The interest of those passengers, who constantly use transport, will not suffer. The price of a pass will remain as before."

However, here is what strikes one in the eye. All of the steps proposed by the branch's staff do not solve the main task: the creation by the beginning of the 13th Five-Year Plan of an economic mechanism which would insure the normal production and economic activity of urban passenger motor enterprises. This means that the efforts of the work collectives will be directed not toward a struggle against the staff of the administration but towards an improvement in transport. You see, one cannot forget that labor productivity in industrial enterprises can fall or rise by four percent depending on the quality of transport services.

The Ministry of Automotive Transport Collegium and the Central Committee of the branch trade union have put together measures to increase the stability in the operation of passenger transport. The more attentively you become acquainted with this voluminous document, the more questions arise. It contains no interesting proposals creating a democratic management mechanism. What is to be replaced? For example, unjustifiably short, less than 500 meters, distances between stops are forbidden. Why is there such trivial regulation? Or again. The participation

of specialists from higher organizations in driver meetings is provided for. Yes, this by itself is a very meaningful procedure... is another matter if the directors regularly report to the work collectives where the centralized assets went. It should be a rule that the profits taken, for example, over the course of five years, should be returned to enterprises in the form of material and technical resources, allocations for the construction of housing, ... you see, this is often the beginning of strife and of passions boiling.

In a word, it is difficult to find in the list of measures answers to the questions which have been so sharply posed by production and economic reality.

Does a real opportunity exist today to untangle the tightly wound knot of contradictions and problems in urban passenger motor enterprises? The specialists think it does. It is necessary to shift to non-branch sources for financing the work of urban passenger transport in order to do this. A special fund is being created for this purpose in the budget of local soviets. It is being formed, in addition, from rent payments levied on industrial and construction enterprises for the use of urban territory and communal services. This model of economic relationships will permit the interests of transport enterprises and passengers to be coordinated. That is why the RSFSR Gosplan actively supports it. However, there are also opponents. Who is right can only be determined in practice.

RAIL SYSTEMS

'Aurora' Crash Followup

18290033b Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russia 2 Nov 88 p 1

[Article by L. Pingarev, Deputy Minister of Railways: "Negligence Caused the Catastrophe" of 20 August 1988]

[Text] The newspaper's criticism is answered.

The MPS [Ministry of Railways] Collegium has examined the data of the official investigation of the wreck of the high-speed passenger train No 159, the "Avrora," which occurred 16 August 1988 on the Berezayka-Poplavens line of the Oktyabr Railroad's Bologovskiy Division.

The investigation established that in the two hours before the wreck, work was done on eliminating deviations from track-maintenance norms under the supervision of Senior Inspector Gavrilov of the 307-km Bologovskiy Track Division. In so doing, most important conditions for the execution of track work—the conformity of the temperature conditions of the rails—were not considered. Lifting of the rails-and-sleeper grid was done at a rail temperature that exceeded the temperature of their fastening by 30 degrees C (the permissible excess is 15 degrees C), which is prohibited because of the danger of distortion (warping) of the track. Temperature stresses in a line of rails and weakening of the rails' stability because of their being lifted could lead, under the action of train loadings, to warping of the track and, as a consequence, to car derailments. Tectonic activity of the earth that was observed 16 August in the area that included the scene of the wreck could have affected instability of the rails, taken together with the indicated violations.

An investigation of the facts of the wreck is being conducted.

The conclusions drawn on the first day of the official inquiry that the wreck occurred because of unjustifiable abolition of the speed limit restriction have not been confirmed.

Those directly guilty, who committed gross violations in current track maintenance in the Bologovskiy traffic area, were taken off the job. A decision was made to release from the official posts they were occupying: Deputy Chief of the Oktyabr Railroad in Charge of Traffic Safety Comrade Rodionov; First Deputy Chief of the Bologovskiy Railroad Division Comrade Iamodennov; chief of the railroad's track services Comrade Shulenin; and the chief inspector for traffic safety, Deputy Chief of the Bologovskiy Railroad Division Comrade Vazarov. Strict reprimands were announced for the

Chief of the Oktyabr Railroad Comrade Zaytsev, his Deputy for Personnel Comrade Gustov, and Chief of the Bogolovskiy Railroad Division Comrade Annenkov.

First Deputy Chief of the MPS's Main Administration for Tracks Comrade Kemezh was reduced in his post.

A strict reprimand was announced for MPS Collegium member and Chief of the Main Administration for Tracks Comrade Mitin.

Interagency Conference Examines Rolling Stock Shortage

18220033a Moscow GUDOK in Russian 1 Sep 88 p 2

[Article by L. Lyubimov (Riga): "Unprofitable Electric Cars"]

[Text]

A Review of Transport Equipment.

In three five-year plans rail transport has fallen short by several thousand cars that it should have received from industry for electric trains. The Riga Carbuilding Plant, still the only one in the country, produced in recent years less than one-half of the requirement. A shortage of electrified rolling stock developed. Union organs and ministries are receiving letters and inquiries: just when will our industry provide rail transport with an adequate number of comfortable electric trains? The questions and complaints of the citizens are correct. The railroads, not having enough electric rolling stock, naturally cannot provide for an increase in suburban haulage. At the depot are spare cars that have served out their lifetime, that are obsolete and too old, and we have been compelled to mend and patch electric trains, giving them an artificial second life. This Sisyphean toil requires additional labor resources and materials. More briefly, it leads to costs that are not repaid, which cannot help but disturb MPS [Ministry of Railways] and the railroad administrations.

Recently the Minister of Railways, N. S. Konarev, jointly with First Deputy Minister of Heavy, Power and Transport Machinebuilding R. Arutyunov, and with the participation of Secretary of the Latvian Communist Party Central Committee Ya. Okherin, Chairman of the Latvian SSR State Construction Committee Ya. Lanters, the chairmen of the main administrations and the administrations of both ministries, and the management of RVZ [Riga Carbuilding Plant] and REZ [Riga Electric Machinebuilding Plant], the subcontracting plant, held an interagency conference dedicated to these questions.

The enterprise has enough problems. A radical rebuilding of the whole production facility is going on. The carbuilders' collective must, under cramped conditions, not only build up the output of the electric cars but also

arrange for the creation of new ones. The plant converted at the end of last year to the series output of 2R2T DC trains. In September of this year output of the AC counterpart—the 2R9T—will be started.

Moreover, the designers' collective is developing trains of the future. The first test model of the ER29 has already been created and is undergoing operational tests at the Fastov depot. Work is being done on creation of the ER30 DC train. A test train will go out on the first test runs in 1990.

Greater comfort of lounge cars through increased car length and greater capacity, economy and convenience of operation are called for in the trains of the future. Serial output thereof is planned for 1992.

Given all the complexity of building up the production facilities, it is planned that the plant will give transport this year more cars than in the past. More are planned for next year than for this one, provided that the builders do not depart from the approved schedule for rebuilding and will start to turn updated departments over to the plant. But this, as was explained at the conference, depends not only upon the builders. The client should provide the facilities that are being rebuilt with the equipment and the machine tools.

This year there are doubts about timeliness of the deliveries. The builders themselves are beginning to impede introduction. And the administration has no assurance that the general contractor, Rigapromstroy [Riga Industrial Construction Trust], will be able to assimilate all the 5 million rubles allocated for this year. The general contractor still has not turned over to the plant a single square meter of finished space. The introduction of units Nos 2, 6 and 8 and of the electrical installation division is being delayed. The plant had hoped to get the section for welding car-truck frames in September, but it will probably get it no earlier than November.

Problems with the suppliers will come up with the new year. The provisioning of nonstandard industrial equipment especially worries the client and the contractor. Eight million rubles were invested in its design and manufacture. Now, with the changing prices that are associated with self-financing, another 14 million is needed. Additional financing still has not been allotted, without which the client cannot conclude the contract with the enterprises that make this equipment. As the representatives of the plant administrations claim, not one kopeck has been spent yet for the equipment, except for the design.

Another of many problems: imports are being used for columns for the machining centers. The Ivanovo, Leningrad and other plants require, correspondingly, compensation for the foreign-exchange costs. The plant still does not have it.

Funds have not been allocated for rebuilding the steel-casting department, and this is a sick section at the plant. The problem of manufacturing the large-dimension measuring equipment that is necessary for reduction gear and other large components has not been resolved.

It would seem that the interagency conference that was conducted will help to resolve the problems that have arisen. The republic's Communist Party Central Committee is monitoring progress in rebuilding the plant.

But still the outlook for providing transport with electric trains does not engender optimism. According to the calculations, this year and next year Mintyazhmash [Ministry of Heavy, Power and Transport Machine Building] will not deliver the necessary number of cars, although during the next five-year plan the Demikhovskiy Machinebuilding Plant of Moscow Oblast, where rebuilding is going on right now, will start to produce nonmotorized cars as a help to the Riga Carbuilding Plant. The shortage in cars will be covered only during the 14th Five-Year Plan.

There is also another, no less disturbing problem, with the widely known ER200 train. This superexpress, in proud solitude, makes one high-speed round trip per week between Leningrad and Moscow, spending 4.5 hours at one end of the trip. Tickets for this run are sold out three months in advance. It is impossible (on the ministry's word) for passengers on emergency official business to get a ticket. A second train is needed for relief, and also because the press has already called for a large number of the trains.

And if one gives some serious thought to the train, it can compete economically with Aeroflot, and it is very advantageous for the country. The specialists have estimated that more than five hours is spent by airplane from Moscow to Leningrad, with a trip by bus to the Vnukovskiy Airport and in Leningrad to the city, while 4.5 hours is spent on the train from the center of one city to the center of the other. And if one considers Leningrad's dense fogs in the fall-and-winter season, when no kind of navigational instruments will guarantee a safe landing, the superexpress guarantees a precise schedule. And if one also counts here the ecological winnings, it is clear that it is worth while to put the train into mass production as quickly as possible.

RVZ promises this year to start and next year to complete one more train. But a number of ministries still have not delivered to the plant the outfitting articles and materials. And it is not known when they will be shipped. Much of the design must be changed. Much time has passed since construction of the first train, and engineering progress does not stand still. Some of the equipment has become obsolete and is not being produced by industry....

In order to build the new trains and to improve them, the plant needs its own testing ground—a singular laboratory on a high-speed section of the Riga-Ergli track. Coordination has been prolonged. Here three ministries take on the role of client: Mintyazhmash, Minelektrotekhprom [Ministry of Electrical Equipment Industry], and MPS. First one, then the other, delayed their share. Now, as was said at the conference, the allocation of funds has been decided. And if there are funds, then in a short time the remaining problems also will be taken off the agenda. An overall interagency protocol was drawn up which defined the deadlines and responsibility for each.

Condition of Railway Cars Detailed
18290031 Moscow ZHELEZNODOROZHNY TRANSPORT in Russian No 9, Sep 88 pp 42-45

[Article by G.K. Senderov, senior scientific staff worker of the Ural Division of VNIIZhT [All-Union Scientific-Research Institute for Railway Transport] and candidate of engineering sciences: "Effective Measures Needed for the Preservation of Railroad Cars"]

[Text] An increase in the number of uncouplings of freight cars for nonscheduled current repair has been observed recently. It has been established that the uncouplings of empties in the overwhelming majority of cases resulted from damage to them during loading, unloading and switching. This damage consisted of the tearing off or fracturing of the sheathing and stanchions,

the malfunctioning or absence of doors, breaks in hatches and the sides, fractures of upper plates of girders, and so on. Altogether, out of 52 basic malfunctions for which cars come for current repair, only various faults of the rolled stock of the wheel type, the wearing out of true of wheel rolling surfaces, and so on, can be characterized as wear or fatigue, according to Form VU-31 data. Thus, each freight car in the operating fleet goes out of operation 3-5 times each year because of damage alone and goes to current uncoupled repair. In this case, cars that have exceeded the service life and those built before 1964 are damaged about 10-fold more often than cars of post-1974 construction.

A comparison of data on uncoupling cars for current repair (form VU-31) with the data of reporting on damaged cars (form VO-15) indicate that actually more cars are damaged than are counted by a factor in the tens. Such a situation is explained basically by difficulties in counting, but also to a definite extent by cases of concealment of the actual number of damaged cars. The situation has worsened sharply since 1986 because of a substantial reduction in the staff of workers who monitor car preservation, with the railroads not taking adequate measures to compensate for this reduction. An analysis of statistical data indicates that the proportion of cars damaged in the railroad yards, as well as the cost of repairing them, have grown continuously (see the table). The share of cars damaged at industrial enterprises and the cost of repairing them are being reduced.

Indicators

Number of cars damaged at MPS* enterprises, percentage of all damaged cars
Number of cars damaged during switching work, percent
Cost of repairing cars damaged at MPS* enterprises, percentage of total cost of damaged cars

	1971-1975	1976-1980	1981-1985	1986-1987
Number of cars damaged at MPS* enterprises, percentage of all damaged cars	8.5	17.2	27.9	34.5
Number of cars damaged during switching work, percent	6.7	16.1	25.2	32.8
Cost of repairing cars damaged at MPS* enterprises, percentage of total cost of damaged cars	35.2	37.6	42.8	38.1

*Ministry of Railways

An especially unfavorable situation with regard to the preservation of cars has prevailed at the Bataysk, Leningrad-Sortirovochnyy [Classification], Khabarovsk, Kochetovka and Yaroslavl-Glavnyy [Main] railroad yards. The main reason is that the required work on preventing damage is not being performed at these yards.

Many cars are damaged when the trains are broken up at hump yards, the increase in damage greatly outstripping the increase in numbers of reroutings. More often than not, car damage is caused by errors and poor operating discipline on the part of those who regulate speeds, inadequate capacity and malfunctions of retarders, and the unsatisfactory condition and the nonconformance of the profile with the grades designed for the hump and the classification tracks. Undoubtedly the increase in car loadings to 80 tons also has been telling. Today there are

practically no reserves of any kind for lengthwise loads during the impact of hump yard operations. Moreover, when computing the stresses allowed for impact, the maximum yield of the material is adopted, while the standard rated load is exceeded 1.16-fold. It would seem that when car loadings are increased, consideration must be given to how this is reflected in increase in damage to the cars and to their overall operating condition.

The process of introducing improved equipment resources is proceeding slowly at classification yards. Only some of the yards are equipped with devices for automated impact-speed regulation, and, what is more, those that exist provide poorly for impact of the cars at the prescribed speeds. Only at an insignificant number of yards are there group retarder positions.

An extremely widespread cause of rolling-stock damage is unsatisfactory state of the tracks. From 33 to 56 percent of car derailments are caused by this. It should be noted that the detectability of derailments is far higher than that of other types of defects. The share of derailments has been increasing in recent years, about 40 percent of them occurring on MPS [Ministry of Railway] tracks, creating a direct threat to running safety. They are especially frequent on the Sverdlovsk, Donets, Moscow and Dnieper railroads.

In examining the car-preservation situation at industrial enterprises, it should be noted that in 1981-1985 the number of damaged cars here was about constant and was reduced only in 1986-1987, in comparison with 1984-1985. This can be explained by the introduction of Change No 2 to GOST [State All-Union Standard] 22235-76, and also by a weakening of monitoring and accounting because of the reduction in preservation staff workers. The industries and enterprises with the poorest showings from the point of view of supporting car preservation were the USSR Ministry of Ferrous Metallurgy (the Nizhny Tagil, Magnitogorsk and Orsk-Khalilovo metallurgical combines, and the Chelyabinsk, Novolipetsk and Zhdanov metallurgical plants) and the USSR Ministry of the Maritime Fleet (the seaports at Nakhodka and Vladivostok). A reduction since 1983 in the number of damaged cars being repaired by the enterprises, especially in 1987 when it was 34 percent less than in 1986, should be regarded as an unsatisfactory trend. Many enterprises are not readying slightly damaged empties for their loads, pushing them out on MPS tracks without repairing them.

At industrial enterprises cars are damaged mainly because of the use during loading and unloading of defective devices or of devices not authorized by GOST 22235-76, various violations of the technology, unsatisfactory condition of the track, and insufficient reliability of various components and parts of cars. During loading, the most frequent damage for boxcars is to floors, which do not withstand the loads from the wheels of electrical and automotive forklifts, and to the sheathing from blows; for flatcars it is to the floors and sides when heavy tracked vehicles pass over them without a protective padding having been laid and when loads are dropped during unloading; and for gondolas it is to hatch covers and their fastenings and hasps during excavator and clamshell bucket unloading.

The number of cars, especially gondolas, damaged by the treatment of freight being hauled in them, particularly while restoring the friability of freezing freight, is growing. Increasingly larger temporary heated enclosures are being built at enterprises. Just recently there were fewer than 100, now there are about 200, and it is proposed to build just as many more. In so doing, temporary heated enclosures of various types and designs are being built, often without regard to the requirements for preserving

cars. Many of the enclosures have no devices for monitoring the heat of car members, which leads to overheating thereof and, during operation, to the breakdown of such important components as the automatic air brakes and axle boxes. With water cooling, moisture inside these components is allowed to fall out.

Still worse is the situation in preserving cars when various rippers are used on frozen freight. They have appeared only in recent years but already today there are about 1,000 such devices in operation, and in the long term there will be severalfold more. DP-60 pin-type vibrator rippers with 15 pins, the Ural-TsNII and Ural-TsNII-SOZ-81 with 5 pins and without locking guides, driller-type ripping machines (BRKhL's), Ural-TsNII type superposed vibrators, and so on, have been distributed most widely. Often all this equipment is operated in faulty condition with parameters that do not meet the norms, and the operating technology is violated. Cars, as a rule, are damaged when the vibration effect on them lasts longer than 7 minutes per unloading. Exceeding the permissible standard for stiffness of rubber members between the body and the facing surfaces of Ural-TsNII-SOZ-81 machines (more than 1,000 kg-force/mm) leads to damage during one-pass unloadings and, what is especially dangerous, to the disarrangement of the car's braking system.

In our view, it has long been time to concentrate the efforts of organizations that are working on the problems of hauling freezing freight on the development and introduction of preventive means. For the present, the main attention is being paid to creating and manufacturing devices for dealing with freight that is already frozen. The figures confirm it. In 1986, steps to prevent freezing in bulk were taken against less than 60 percent of the freight that freezes (flash freezing, drying, the use of sawdust and salt, and so on), and the prevention of freight freezing to the walls was undertaken in less than 20 percent of the loaded freight cars. Only 10 percent of the niogrin required for this was produced. This situation must be changed quickly.

The matter of preservation of gondolas when they are being unloaded by cartippers, the number of which in recent years has about doubled, is going badly. The cartippers are highly productive and daily they unload tens of thousands of gondolas. The state of the gondola fleet also depends greatly upon the conformance of the design and operating condition of these installations with the prescribed requirements. Unfortunately, despite the clear demands made on cartipper design that are called for by GOST 22235-76, willful alteration of them, which leads to large-scale damage to gondolas, is tolerated.

Special research with the measurement of strain in the constructional members of car bodies during repeated unloading has indicated that car preservation when loading up 65-68 tons is ensured only when the reinforcing of the facing wall and the cartipper supports are

serviceable and made with rubber members. During the loading of gondolas with more than 68 tons, there are no reserves of any kind for some components. Therefore, while loading these cars with as many as 80 tons will, in and of itself, lead to large scale damage to them, the absence of reinforcement in the cartippers or even the slightest increase in its rigidity catastrophically aggravates the situation.

The journal's pages have already mentioned how the Cherepovets Metallurgical Plant put metal sheet instead of rubber reinforcement (which was destroyed by cars of the augmentation group) on the facing walls of the cartippers. Such a "modernization" led to the destruction of components of the stanchion joint with the frame on all the gondolas of unit trains assigned to the enterprise while being unloaded by this cartipper. Instead of a correction of the "modernization," it was decided to unload only cars of the assigned group at the cartipper. However, in actuality, this decision was not carried out, and large-scale damage of gondolas continues.

The case of alteration of cartipper supports at the Yenakiyev Byproducts Coke Plant is scandalous. Here, in violation of GOST-22235-76 requirements, they removed the reinforcement from the supports and changed their design in such a way that they actually were converted into a device for bending and damaging the upper gondola's top strapping. It is characteristic that, upon an appeal to VNII Gosudarstvennoy patentnoy ekspertizy (VNIIGPE [All-Union Scientific-Research Institute of the State Patent Board]), an answer was received in which this organization, defending the honor of the uniform, considered it proper to issue a patent for a design solution that directly contradicts GOST 22235-76 (article 2.3.2), and, in so doing, it alleged that the modification was agreed to by workers of the railroad's car activity. The Donets Railroad committed another direct violation of the GOST requirements and the drawings for the cartippers agreed to by MPS—authorization was given to enterprises to change the design of the reinforcement of the cartipper's facing wall, which inevitably will lead to gradual destruction of gondola car bodies.

Very frequent damage to cars is characteristic for clamshell-bucket unloading. An especially unfavorable situation has prevailed in Far Eastern Steamship Line ports, where the use of clamshell buckets whose parameters do not meet the requirements of GOST 24599-87 and GOST 22235-76 for clamshell buckets that are intended for unloading railroad gondolas has been permitted.

In analyzing the matter of car preservation at various installations that are interacting with them, the fact that they do not conform with future cars should be noted. Moreover, even the new cartippers that are being delivered to replace worked-out equipment are designed for unloading only 4-axle gondolas. Cartippers suitable for unloading 8-axle gondolas are being delivered only to unloading complexes, that is, the modernization of old

complexes is not taking the long-term into account. And new equipment for restoring the free flow of freezing freight is unsuitable in dimensions and specifications for operation with heavy-duty gondolas.

Thus the situation in the matter of preserving rolling stock on the railroad network continues to be troubled. Necessary for correcting it are motivated, systematic and interrelated work by railroaders, the clientele and the suppliers of new equipment, a complex of active and effective measures, and a rise in responsibility for implementing corrections.

Let us dwell on certain primary problems. The data and facts cited testify that recently the institute for inspectors for preserving cars has slackened its attention to technical questions, focusing its main efforts on finding damage and bringing the guilty to account. It is obvious that, together with this, the activity of preventing damage, work that is unquestionably important and necessary, should be invigorated—workers of the car activity services should, jointly with the workers of other participating services, systematically check all the equipment that interacts with rolling stock. Devices on them which, in design, operating condition or operating technology, do not ensure the preservation of cars or do not meet GOST 22235-76 requirements should be replaced or repaired. It is desirable to write into the Charter of the Railroads that the right to use devices should be stipulated in the inspection report that precedes the preparation (or reparation) of the Contract for the Operation of Railroad Spur Tracks. All the changes of article 22 that are called for in the questions to the report (the presence of loading and unloading mechanisms by make and type, and their characteristics and productivity), should be coordinated with the appropriate railroad services. The operation of devices that are not reflected in article 2 without coordination with the administrations of the roads should be categorically prohibited. Clamshell-bucket unloading of free-flowing freight from gondolas (except for various maritime and river ports) should gradually be completely eliminated. It is important also that all newly manufactured devices, including cartippers, and temporary heating shelters for thawing freight should enable work to be performed with 8-axle cars.

Experience indicates that it is impossible to ensure the preservation and overall improvement in the operating condition of the car fleet in the modern era without a radical improvement in the work of the classification hump yards. Primarily, it is necessary to see to it that the profiles of the humps, the classification tracks, and the state of the retarders correspond completely to the prescribed standards. The group of speed regulators should be completely outfitted. An urgent task is sharp acceleration of the work on equipping classification humps with third and fourth group brake positions and the introduction of a reliable system for automated regulation of the speed of uncoupling. Carbuilding plants can do much. Above all, it is necessary to increase the reliability of

various car components, primarily the floors of boxcars and flatcars and the end walls and doors of boxcars. The stanchions and metal sheathing of gondolas (cracks in corrugation corners are frequent) and a number of other car members must be strengthened,¹ to bring them into accord with modern operating conditions. Simultaneously it is necessary to be more active in preventing the operation of cars with expired services lives and in modernizing cars built after 1974 by replacing their absorbing gear with gear of greater absorbing capacity, which will provide for impacts at a speed of 12 km/hr or more.

Scientific research must be performed to solve a number of the problems associated with ensuring car preservation. These involve primarily the reworking of GOST 22235-76 on car preservation, whose period of effectiveness expires in 1989, the development of a standard for assessing damage according to selected data, a study for determining the stress level of car members during unloading at cartippers and of impact during switching operations, and so on. Such research is necessary in order to develop a standard that includes the standards for the moisture content of the main types of freight and mandatory preventive measures that will forestall freezing, without the use of which freight would not be accepted for haulage. The area of research should exclude all operations with freight in the car.

In order to solve these problems, it would be desirable, in our view, to organize a special laboratory in VNIIZhT. Unfortunately, the group in the Ural Division of VNIIZhT previous engaged in problems of preservation has now been switched over to other work.

The system for monitoring car preservation is in need of radical improvement. The selective monitoring of damages should be introduced through Gosstandart [State Committee for Standards], under which the estimated amount of damages and the annual total of penalties for damage of cars at a given enterprise (or installation) would be determined by the results of three or four small samples. Penalties should be deducted from their bank accounts regardless of whether they consent, and constant monitoring over car safety should be established at poorly operating enterprises, with the staff to be supported by the enterprise. It is irrational, in our view, to curtail the points of equipment exchange, at which inspectors discover or prevent, in a year, damage in an amount that greatly exceeds the expenditures on upkeep of these points. Here and there, depending upon local conditions, it is desirable to transfer the inspectors' responsibilities to freight-acceptance personnel and other workers of the railroad division, but not formalistically, yet taking their potential into account. A system for material incentives should be established for each discovery of damaged cars, as is done, for example, on the Sverdlovsk and certain other railroads. And the creation of a special inspectorate of the motor-vehicle roadworthiness type, to be granted wide rights to impose

penalties on the guilty for damaged cars and to prohibit the use of devices that damage cars, would promote a strengthening of monitoring locally.

Realization of the enumerated and some other measures, many of which do not require much capital cost, will enable car preservation to be provided for on a much higher plane than at present. The responsibility of enterprises for damage to cars should be raised to a new state level. In our opinion, enterprises should be legally obligated to repair all cars whose bodies are damaged in the amount of the current coupled and uncoupled repairs and the transfer thereof to MPS tracks should be prohibited. Expenditure for repair of these cars, and also of cars with graver damage which are transferred for repair on MPS tracks, should be covered from the enterprise's incentive funds.

Footnote

1. See ZHELEZNODOROZHNYY TRANSPORT [Railroad Transport], No 12, 1968.

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Rolling Stock Repair Facilities Scored

18290025 Moscow GUDOK in Russian 28 Sep 88 p 2

[Article by M. Kaganskiy, GUDOK special correspondent: "Why Repair Scrap?"]

[Text] A telegram from the Tbilisi transport procurator's office arrived at the GUDOK editorial board. Its content was as follows: The procurator's office is checking on how the laws on the struggle against the production of poor quality products are being carried out in the Tbilisskiy Electric Railcar Repair Plant. That was the reason for the request to all organizations to report claims against the enterprise.

V. Motarin, leading engineer for the repair of electric trains in the Locomotives Main Administration of the Ministry of Railways, confirmed: "There is a mass of claims. Criticisms about the quality of repairs are coming from many railroads. It is sometimes necessary in several months to eliminate breakdowns at the local area after repairs."

There is poor workmanship in Tbilisi. I went to the capital of Georgia with this thought—so to speak, to give vent to my bile with my fountain pen.

T. Chikvaidez, chairman of the republic administration of the USSR State Committee for Standards, stated: "We have returned all seven out of the seven passenger railcars prepared for dispatch. Not a single one is beneath norm requirements."

Only, what defects did the inspectors not find! Poor quality painting, an incomplete set of required equipment, the absence of coolers and loudspeakers—these are only a few from the long list of defects.

Vazha Kupradze, the joiner brigade leader in the plant's passenger car repair shop, is vigorously outraged: "Flaws in workmanship! I have worked here for 38 years and never have I seen such disgraceful things. Look at the cars they send for repairs."

Vazha Trifonovich shows me "fresh" railcars. The impression was that Mamay had passed through the cars with his wild horde: Many did not have any seats at all, others had been torn out by the roots, window frames and doors had been twisted, there were gaping holes instead of speakers, ...

An accident?

A. Dzhgarkava, the chief of the plant's production department, laments: "If it were that." He shows a list. "Car No 3983 from Krivoy Rog, No 13592 from Novorossiysk, No 26315 from Simferopol, and No 21125 from Baku have just been received. They are missing 20 to 40 items and units without which it is stipulated that railcars cannot be received for repair. What is missing—generators, cooling equipment, fluorescent lighting converters, semi-upholstered seats..."

Dzhgarkava asks: "Where has all this been taken? You see, they supply us with spare parts, but not completely—only for railcars in "decent" shape."

I naively suggest: "Why accept plundered railcars? Send them back as it is stipulated."

They answer my question with a question: "And the plan? With what will we then pay the collective? We travel to the railroads for such railcars. We implore them to send railcars for repair."

Here the discussion takes a turn.

Its magnitude dictates its own laws, strategy and tactics. What is there of quality if it is necessary to "force out" railcars. You see, they are obliged to send them according to an agreed schedule. The plant workers even conduct so-called repair conferences with representatives of the railroads and arrange for rolling stock repair delivery periods. However, a schedule is a schedule and life is life.

From the middle of June when passenger traffic is at its peak period, the railroads are compelled to put on the tracks everything that can be held by them because of the shortage of railcars. That is why they basically send for repairs railcars from the dregs and nearly from the dump—and yes, this in accordance with a special directive from the ministry directors. The railroad workers call them "coffins."

The railroads know that the repair people, as they say, dig out any junk with their hands, and they profit by this: They plunder the cars before sending them and remove everything useful from them. The repair workers close their eyes to this. You scratch my back and I will scratch yours.

Moreover, the customer, to put it mildly, is not too overparticular in accepting the repaired railcars. They need something to carry people in.

What is there to say—the enterprise has fallen into a vice and no matter where it turns there is an obstacle. Its reconstruction has already been stretched out for 13 years. The timeframe for completing it has been repeatedly postponed. This year, there is the usual adjustment to the schedule. On the day of my arrival at the plant, a meeting of the reconstruction staff was held. The directors of the Leninskiy party raykom, rayispolkom and the Zaktransstroy SU-131 Trust—the general contractor—participated in it. They outlined extreme measures to accelerate the work. However, it is an irony of fate that not a single builder was working that day in the most important section—the paint application shop.

E. Budeshtskiy, the chief engineer of the enterprise, complains: "This section has torn apart all its equipment. We cannot clean an old railcar normally nor paint a new one. Everything must be done manually in unsuitable locations."

He conducted me around the area. Here and there on free track, they were peeling the old covering, which hung down in rags, from railcars. As long as the days are fine, it is possible to do something. But what happens when it rains? The plant workers have the capability of using mechanization for this work—blasting machines for cleaning the old covering and assemblies for painting in an electrostatic field. However, ... this equipment is nowhere to be seen. They promise that the plant will be finished at the end of the year.

The reconstruction is taking place so-so, and the repair of electrical machinery is taking place in the plant. The cement dust here, as they say, stands in a column; however, as is known, almost sterile conditions are required for the repair of electric motors. It is not surprising that the overwhelming number of complaints concerns this product.

This does not at all mean that the plant workers are lily-white and pure. They have plenty of their own blemishes. Discipline is not equal to the occasion, the engineer preparation of the plant has been organized poorly, and everything is far from being in order with regard to personnel staffing. As is said, they must work and work.

Nevertheless, one of the main reasons for the interruptions in the enterprise lies in something else—in the poor quality of the material and technical support. The shortage of the most elementary spare parts has become a chronic one. Matters concerning lumber and component parts is especially poor. The required equipment does not exist—testing stands for inspecting coolers, dampers and many other items that are required for normal operations.

Does the Rolling Stock Repair and Spare Parts Production Main Administration of the Ministry of Railroads know about the serious situation in the Tbilisi plant?

A. Tsypakov, deputy chief of the main administration, replies with a heavy sigh: "Of course, we know. However, what benefit will come of this?"

He shows me a package of telegrams: The people of Tbilisi are sounding the alarm—there are no repair installations. The deputy chief of the main administration complains: "We have turned to the railroads and there have been instructions from Ministry of Railways directors on this score but the Dnepr and Azerbaijan railroads failed to provide approximately 40 rail cars in accordance with the July plan. This was practically half of the plant's repair plan. There are also discrepancies in supply. Of course, the plant directors are also displaying sluggishness and are not "knocking out" out the stipulated repair parts from suppliers with sufficient persistence. We are managing with great difficulty to get what has been allocated—and far from the full amount. With what can we outfit the rail cars? It is necessary to repair rolling stock that is of "pension" age—20-30 years of service. Foreign firms stop manufacturing spare parts 15 years after railcars have been produced."

And so, the circle has been closed. How can it be broken? Procurator methods will not help here. Approximately two years ago, GUDOK wrote about the serious situation in the enterprise. The local leadership and the main administration "took steps"—they broke up the previous leadership.

New people, who—they assured us—were qualified specialists with large work experience, were put at the enterprise's helm. The result?

Undoubtedly, there are changes for the better. The workers in the Ministry of Railways main repair administration and even operating personnel have noticed

these. In the opinion of Nodara Dolidze, the chief of the Tbilisi Passenger Railcar Depot, for example, the quality of repairs has improved in comparison with that of previous years.

The fact that complaints about the quality of railcar repairs have become significantly fewer testifies to this; there were none at all during the last two years. However, there has been no sudden radical change. And there will not be any if the strategy for updating rolling stock is not changed.

Today, the major overhaul of railcars that have completed their service life is quite a bit more expensive than the construction of new ones. This is clear, it seems, to everyone—except to USSR Gosplan workers on whom a great deal depends in supplying railroads with modern rolling stock.

There will be no improvements in its supply during the new five-year plan. Instead of sounding the alarm, however, the workers in the country's main planning agency are trying to conceal the acuteness of the problem and are operating with "wholesale" figures. Even mail cars, which the Ministry of Communications is receiving, are included in the total delivery volume. Thus, having mixed everything up into a small group, they are trying to create the appearance of prosperity. However, we saw its true cost this summer when thousands of people were not able to travel normally.

There have been quite a few articles on GUDOK's pages concerning this very acute problem. Alternative versions have also been proposed: to include other branches of heavy industry besides the Ministry of Heavy, Power, and Transport Machine Building in the building of railcars and to attract financing and resources from interested organizations for this purpose. It is a blessing that such proposals are arriving from them.

As is known, hopeless situations do not exist in life. Specialists are suggesting a way out. They see one of the solutions to lie in switching part of the railcar repair plants to new construction.

The specific ways, which are selected, are a matter for the specialist. One thing is clear—the present situation is leading into a blind alley and it is necessary to make a decision immediately.

The entire civilized world is trying to free itself more rapidly from junk, but we are saving scrap and are struggling to lengthen its life, essentially programming a technical lagging behind.

Why should we reanimate "coffins on wheels", diverting enormous forces and resources to repairs—yes, and to give the appearance that this is good?

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